



1994

## A Study of Classroom Experiences of Children with Disabilities When They Are Included in Grade Level Classrooms

Elizabeth A. Johnston  
*Loyola University Chicago*

Follow this and additional works at: [https://ecommons.luc.edu/luc\\_theses](https://ecommons.luc.edu/luc_theses)



Part of the [Education Commons](#)

---

### Recommended Citation

Johnston, Elizabeth A., "A Study of Classroom Experiences of Children with Disabilities When They Are Included in Grade Level Classrooms" (1994). *Master's Theses*. 4058.

[https://ecommons.luc.edu/luc\\_theses/4058](https://ecommons.luc.edu/luc_theses/4058)

This Thesis is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Master's Theses by an authorized administrator of Loyola eCommons. For more information, please contact [ecommons@luc.edu](mailto:ecommons@luc.edu).



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](#).  
Copyright © 1994 Elizabeth A. Johnston

A STUDY OF CLASSROOM EXPERIENCES OF CHILDREN WITH DISABILITIES  
WHEN THEY ARE INCLUDED IN GRADE LEVEL CLASSROOMS

by

Elizabeth A. Johnston

A Dissertation submitted to the Faculty of the School of  
Education of Loyola University of Chicago in Partial  
Fulfillment of the Requirements for the Degree of  
Doctor of Education

May

1994

## ACKNOWLEDGMENTS

The author thanks each member of the dissertation committee: Dr. Bailey, Chairman for his guidance through the process of study, Dr. Safer for his encouragement and interest and Dr. Fine for her expertise and continued support. Additionally, gratitude and appreciation is expressed for many colleagues and teachers within the profession who provided models of learning and teaching.

The author remembers with gratitude and love the encouragement of her parents who valued education and effort and the support of her son who completed his own doctoral degree in June of 1992. This project is completed with a sense of joy and a feeling of gratitude towards many.

## VITA

The author, Elizabeth Anne Johnston, was born in Great Britain on May 24, 1943. She immigrated to the United States on December 14, 1949 and received her elementary and secondary education in public schools in United States of America. She graduated from Mayfield High School, Mayfield, Ohio in June of 1960.

Ms. Johnston began college at Kent State in Kent Ohio in 1960. Higher education was interrupted by marriage and the birth of her son. She returned to school at Michigan State University in January of 1970 and completed a BA with majors in Fine Arts and Psychology in June of 1973. Teacher training in Fine Arts and Special Education was completed in June of 1975 and teaching began in September of 1975. In August, 1980, she completed a Master of Arts degree in Art and Special Education from Michigan State University.

Ms. Johnston's teaching experience of thirteen years included elementary, middle and high school teaching assignments with children who had special learning needs. She was a department chairman for nine of her thirteen teaching years.

Ms. Johnston received her type 75 in 1987 from University of Illinois and accepted a principals position in September of 1988. In fall of 1991, she entered doctoral study in Educational Leadership and Policy Studies at Loyola University. Ms Johnston is currently Director of Evaluation for Wheaton Warrenville School District.

# TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
VITA	iii
LIST OF FIGURES	vi
CONTENTS OF APPENDICES	viii
Chapter	
I. INTRODUCTION AND OVERVIEW.	1
Purpose of the Study	5
Research Questions	6
Methodology of the Study	7
Definition of Terms	8
Limitations of the Study	9
Organization of the Study	10
II. REVIEW OF THE LITERATURE	12
Introduction	14
Organization of the Review	15
Definition of Inclusion	16
Early Special Education Practices	17
Court and Legislative Action	19
Least Restrictive Environment	22
Inclusion	23
Summary and Response	24
Inclusion and the Rights of Children	25
Educational Value of Inclusion	32
Summary and Response	35
Benefits of Inclusion	36
III. METHODS AND PROCEDURES	42
Research Questions	44
Population	45
Services Provided	45
Observational Strategy	46
Observational Codes	47
Group Structure	48
Instructional Tasks and Strategies	57
Time on Tasks	62
Opportunity to Respond	67
Distribution of Teacher, Aide and Peer Attention	69
Aide Interactions	70
IV. PRESENTATION AND ANALYSIS OF DATA	71
Introduction	71
Observation Data	73
Demographics	73
Analysis of Data	74

Frequency Codes	74
Compilation of Data	75
Instructional Structures	75
Instructional Structures for Children with Disabilities	83
Task and Instructional Modification	91
Time on Task	97
Teacher, Aide and Peer Attention	100
Opportunities to Respond	101
Analysis and Implications	102
 V SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	 111
Summary of Study	111
Conclusions	113
Recommendations	117
Recommendations for Further Study	119
 REFERENCES	 120
 APPENDICES	 128

## LIST OF FIGURES

Figure		Page
1	Distribution of classroom time in various instructional structures by children without disabilities	77
2	Classroom averages showing time spent in large groups by children without disabilities	78
3	Classroom averages of time spent in independent instructional structures	80
4	Percent of classroom time spent in small group structures by children without disabilities as observed in seventeen classrooms included in the study	82
5	Distribution of time in various instructional structures for children with disabilities as observed in the study	84
6	Participation by students with and without disabilities in large groups	86
7	Comparisons of percents of time spent in small group instructional structures by children with and without disabilities	88

8	Comparison of participation levels in independent instructional structures by children with and without disabilities as observed in the study	90
9	Distribution of time in various instructional and task modifications by students with disabilities as observed in the study	93
10	Students with disabilities in same task/same instructional strategy situations	95
11	Mean percents of time children with disabilities spend in learning situations directed by teacher, aide and peers. Transition, structured free time and other time commitments are also shown.	99



## CONTENTS OF APPENDICES

	Page
APPENDIX A      Student and class descriptors	128

## CHAPTER I

### INTRODUCTION AND OVERVIEW

Least Restrictive Environment has always been a point of concern in American Special Education. The very first statutory requirements for the education of children with disabilities describe the provision of a free and appropriate education (FAPE) in the least restrictive environment (LRE) (94-142, 1975). The concept of LRE is embedded in PL 94-142 where it states that "removal from the regular education environment is to occur only when the nature and severity of the handicap is such that education in regular classes with the use of supplementary aids cannot be achieved satisfactorily" [Sec. 612950 9B)] (Gartner, et.al., 370)

LRE means educating a child with disabilities in an environment that most closely resembles the one he would be in if not disabled. Separating children with disabilities from mainstream educational experience is assumed to be a restrictive experience only justifiable when necessary for the provision of an appropriate education.

LRE and FAPE are based on the American concern for equity in education for all children and can be seen in the PARC case filed in 1972 in Pennsylvania (PARC, 1972). The resolution of that case was based in part on the landmark

desegregation case of *Brown v Board of Education of Topeka* (1954) which held "education is a right which must be made available to all on equal terms".

When Special Education was initiated in the mid seventies, LRE requirements were addressed by considering a continuum of services. The environment that met the child's needs most effectively in the least restrictive placement was the one chosen by educators and parents.

By the mid eighties, special education existed as a separate form of education, and Madeline Will wrote a position paper calling for unification of both systems of education (Will, 1986). After identifying problems, Will offered some solutions. She suggested a unified educational system where technologies are shared by specialists and generalists and adaptations are made within the regular program of instruction. Will says most effective educational programs for those with disabilities include increased instructional time, building based support systems of classroom teachers, site based management of special programs, and increased use of new instructional approaches (Ibid). This, she believes, can be accomplished only through a partnership between regular and special education. By infusing special or categorical services into grade level classrooms to support children with disabilities, Will believed a stronger educational system could be created for all children (Ibid). Inclusion is the term that most closely relates to the infusion and coordination of categorical services into the mainstream.

Other terms relating to LRE are mainstreaming, integration and Regular Education Initiative (REI). These three terms refer to bringing children with disabilities into mainstream classes for some or all of their services. Inclusion is a philosophical position welcoming all children into the grade level classroom.

Inclusion assumes children with disabilities will attend school where they would if not disabled. Their needs will be met because special services or supports will become a part of the tool set available to grade level teachers. Unlike the other three terms, inclusion implies a structural change in the delivery of special education services that will alter both special and general education.

Will's white paper had a major impact on the special education system. LRE became the focal point of disputes regarding placements of children with disabilities. The court cases that developed around disputed placement decisions also had a major impact.

Cases involving disputes over the placement of children with disabilities reached both federal and state courts. In most instances, the school district was the defendant and parents requested a less restrictive setting for the education of their child with disabilities. In a recent California decision, the court held a child with disabilities should be placed in an appropriate grade level classroom if a satisfactory education could be achieved there even if a separated placement would result in a superior academic experience.

In Illinois, Robert Leininger, State Superintendent of Schools has presented a position paper to the public and is soliciting input. While this statement has not been adopted, it illustrates a shift towards Inclusion in ISBE thinking about educational services for children with disabilities in Illinois.

"Children belong together, regardless of their ability or disability. By being together during their school years, they have an opportunity to learn, to grow, to model appropriate behaviors, to improve language and communication skills, to form friendships and learn community values, and to plan for the future together.

Separating any child from his or her neighborhood classmates is appropriate only when it is individually advantageous for that student for the delivery of appropriate instruction.

Accordingly, the State Board of Education believes that for students with disabilities, delivery of the specialized instruction and related aids and services outlined in each student's Individualized Education Program (IEP) should ordinarily be in the school and class the child would attend if not identified as disabled. Should that regular classroom setting not be individually appropriate, as determined through the IEP process with the family, then an appropriate alternative setting for service delivery must be provided. Removal of students with disabilities from the regular educational environment should occur only when the nature or severity of the disability is such that education in regular classes, with the use of appropriate supplementary aids and services cannot be achieved satisfactorily."

This definition is drawn from current literature and will be used as the basis of the definition adopted for the purposes of this study. Inclusion will be defined as an educational practice where 1) placement of all children in grade level classrooms is assumed with 2) additional supports and services to augment the classroom teachers expertise and 3) separation of the child will occur only when individually advantageous to that child.

If implemented nationally, inclusion will affect millions of children over the next few years. Courts have considered many ramifications of inclusion on resource allocation and the structures of schools, special educators are predicting many benefits for children from the practice. Still a review of the literature shows few studies documenting the experiences of children as inclusion is implemented.

There is an identified need for empirical observations of its impact on children, teachers and classrooms as implementation occurs.

### Purpose of the Study

The purpose of this study was to describe classroom experiences of students, teachers and aides in grade level classrooms where children with moderate to severe disabilities have been included. Classroom observations included instructional structures, time on task and opportunities to respond for children with and without disabilities. The study described the amount of time spent in the following instructional structures: large group, small group, independent, one to one, peer directed, transition times, structured free time, unstructured free time and other. It determined how much time the included child is involved in the same instructional structures, how much time on task is exhibited by children with and without disabilities and how many opportunities to respond are provided for children with and without disabilities. It studied how much task modification and instructional modification is done for the included child. It described how teacher, aide and peer attention is distributed to children with disabilities related to task engagement.

The findings of the study are of interest to parents, teachers and administrators who are beginning to include children with disabilities in grade level

classrooms. There are implications for future teacher training and in service practices.

### Research Questions

- 1. How much time are children in grade level classrooms spending in various instructional structures in classrooms where children with disabilities are included?
- 1A. How much time are children without disabilities spending in various instructional structures?
- 1B. How much time are children with disabilities spending in the same instructional structures as their non-disabled classmates?
- 2. How much task modification for children with disabilities is witnessed in the classroom ?
- 3. How much instructional modification for children with disabilities is witnessed in the classroom?
- 4. When children with disabilities are included in grade level classrooms, how much time are they spending on task ?
- 5. How is teacher, aide and peer attention distributed to children with disabilities related to task engagement?
- 6. Do children with disabilities have teacher initiated and self initiated opportunities to respond comparable to that of children without disabilities in the grade level classroom?

## Methodology of the Study

Seventeen classrooms in three elementary schools in one large suburban school district where children with disabilities had been included for two years or longer were targeted for the study. Every classroom fitting this description was included in the study. Altogether, 32 children with disabilities and approximately 491 children without disabilities were observed. The district chosen for the study was located close to Chicago in the western suburbs. It served approximately 13,000 children including a diverse population of minority and low income children of approximately ten percent.

The study was constructed around classroom observational techniques developed by Dr. Rick Van Acker (1991) and Dr. Alan Repp (1989) of Northern Illinois University. They used a computer program to time and count various classroom behaviors. The program can be established to respond to any identified set of codes. Thirty five separate observational codes were developed for this study and the program was set to them.

The 35 codes developed focused on instructional structures, time on task, distribution of teacher, aide and peer attention, curriculum modification and opportunities to respond. Most were adapted or adopted from Dr. Van Acker's unpublished work which is based on Dr. Repp's work. A few were developed specifically for this study.

Two observers practiced observation and compared results until they reached a 90% agreement. Once reliability was established, a minimum of ten



observations was completed by a single observer in all 17 classrooms. Results were calculated into percentages and frequencies and compared classroom by classroom and across the district as a whole.

### **Definition of Terms**

Terms used for the study were defined as follows:

#### **1. Inclusion**

Inclusion is defined as the practice of including children with disabilities in the classroom where they would be served if not disabled and providing all necessary aids and services to support a satisfactory education in that location. The child is removed only for their own educational benefit. This definition is found in several places. Robert Leininger, State Superintendent for Education in Illinois presented a similar definition for public input in April of 1993. It is also drawn from the literature review.

#### **2. Aids and Services**

Services include categorical support services such as speech therapy, occupational or physical therapy, social worker, psychologist, and special education teacher or aide. Aids can include any special equipment or adaptations developed to assist the child with disabilities as they learn.

#### **3. Classroom Teacher and Special Education teacher (Inclusion Facilitator)**

Classroom teachers work in grade level classrooms and are certified to teach elementary school.. Special education teachers are regarded as a support service in the inclusion plan. Children with disabilities require the support of a special education teacher when they are included in grade level classrooms. They remain on the case load of the special education teacher for reimbursement purposes. Special education teachers who work with children in this context are often called inclusion facilitators.

#### 4. Children with Disabilities

For this study, children with disabilities are defined as children identified as disabled by an Interdisciplinary Educational team composed of parents and professionals charged with responsibility for an Individual Educational Plan (IEP) for the child. Disabilities are defined as specified by law as eligible for special education services. Additionally, children observed in this study were identified as moderately or severely disabled and would have been educated in a separate or pull out model in the past.

#### Limitations of the Study

The study is limited by the following points related to design:

1) Results from this study were based on data from elementary schools in one school district. Therefore, results may not generalize well to secondary, middle schools or other districts. Other educational levels may have significant differences

in areas such as student maturity, student educational needs and program structure. Other districts may have critical differences such as different demographic configurations, different levels of staff expertise or training or different cultural environments that may affect experiential outcomes for children.

2) Results are based on only 200 minutes of classroom time taken over a four week time period. The present study assumes that this samples can be used to accurately reflect all classroom experiences.

3) Teachers were aware that observers were in the classroom to study inclusion. This awareness may have resulted in atypical teacher behavior during observation sessions.

4) The presence of observers in the classroom may have also affected the behavior of children. Children may have acted in an atypical manner because there were observers in the classroom.

5) Conclusions of this study are limited to specific findings as supported solely by the collected data.

### Organization of the Study

The first chapter provided an introduction and overview of the entire study. Each following chapter details the research process.

Chapter II provided a review of the related literature and research from fields of special education, special education law and cooperative education. The chapter was organized around five questions. The first two questions were centered around the practice of inclusion, its development, definitions, guidelines

and parameters. The second question clarified how inclusion has affected the classroom rights of children with and without disabilities. The last three questions identify classroom benefits or changes related to inclusion as reported in national research or literature.

Chapter III outlined methods used to complete the study. Observational strategy, instrument and codes are described. The procedures used to analyze collected data are detailed. Chapter IV presented data and completed the analysis. Results of analysis are related to the research questions.

Chapter V summarized the findings and drew conclusions based on the findings. Suggestions for further study were developed from the findings of this study.

CHAPTER II  
REVIEW OF THE LITERATURE  
Introduction and Review Summary

The purpose of this study is to describe classroom experiences of students, teachers and aides in grade level classrooms where children with moderate to severe disabilities have been included. Classroom observations include instructional structures and opportunities to respond for children with and without disabilities. Additional observations were made of time spent on task and teacher, aide or peer attention available for children with disabilities.

Literature review focused on defining inclusion and reviewing literature and research related to the practice of inclusion. The questions addressed in the review are definitions of inclusion, parameters and guidelines established for the current practice of inclusion, impact of inclusion on other children in the classroom, and established or anticipated benefits of inclusion for children with and without disabilities. Some empirical classroom studies were reviewed to find effective strategies for observing student, aide and teacher classroom interactions.

Parameters or guidelines defining Inclusion come from decisions made in court cases interpreting statutory requirements. Inclusion is based on values as much as educational theory. Proponents of inclusion cite civil rights and ethics as reasons for returning students with disabilities to neighborhood schools. John Davis, a defense lawyer in Brown vs. Board of Education case (1954), argues if segregating black children is unconstitutional, then it must be the same for children defined as disabled (Gilhool, 1986).

Definitions of inclusion and how it is to be implemented will come from court decisions (Anderson, 1989). For this reason, the review included relevant court cases from national and state courts. By examining court holdings, legislative history and rules and regulations promulgated to implement statutory requirements, a clearer picture of Special Education and Special Education Inclusion practices emerged.

Benefits are predicted for children with disabilities when inclusion is practiced and inclusion advocates urge return of all children with disabilities to mainstream classes (Stainback, Stainback and Bunch, 1989). Many believe all students can learn and interact positively in mainstream environments if individualized, adaptive and cooperative learning programs and proper guidance are in place (Berres & Knoblock, 1987; Certo, Haring & York; 1984, Madden & Slavin, 1983, Stainback & Stainback, 1985).

Although positive results are predicted, few studies demonstrate benefits or describe experiences of children with disabilities when they return to grade level classrooms (Meyer, 1987). The literature review surveys professional writing and reports on the predicted benefits for children. The review also reviews available research on the classroom experiences of children when inclusion is practiced.

### Organization of the Review

The literature review was organized around related and research literature.

A comprehensive review of literature from Special Education and Law gave background by focusing on these questions:

- 1. What are the legal precedents and guidelines for the current practice of inclusion?
- 2. How has the practice of inclusion affected the rights of children with and without disabilities in grade level classrooms?
- 3. Does nationally reported empirical research establish the educational value of inclusion for students with disabilities?
- 4. Does nationally reported research establish how inclusion affects learning opportunities for students without disabilities?
- 5. What benefits are reported for children in classrooms where children with disabilities have been included?

At the end of each section, a summary will report findings, answer the questions and relate findings to the need for this study where appropriate.

#### What are the legal precedents and guidelines for the current practice of inclusion?

This section of the review will answer questions about definitions of inclusion and its practical parameters as defined by our courts and other legally responsible institutions.

### Illinois State Board of Education Defines Inclusion

In April of 1993, a draft position paper on Inclusion was developed by the Illinois State Board of Education (ISBE). Robert Leininger, State Superintendent of Schools has presented this position paper to the public and is soliciting input. While this statement has not been adopted, it illustrates a shift towards Inclusion in ISBE thinking about educational services for children with disabilities in Illinois.

"Children belong together, regardless of their ability or disability. By being together during their school years, they have an opportunity to learn, to grow, to model appropriate behaviors, to improve language and communication skills, to form friendships and learn community values, and to plan for the future together. Separating any child from his or her neighborhood classmates is appropriate only when it is individually advantageous for that student for the delivery of appropriate instruction.

Accordingly, the State Board of Education believes that for students with disabilities, delivery of the specialized instruction and related aids and services outlined in each student's Individualized Education Program (IEP) should ordinarily be in the school and class the child would attend if not identified as disabled. Should that regular classroom setting not be individually appropriate, as determined through the IEP process with the family, then an appropriate alternative setting for service delivery must be provided. Removal of students with disabilities from the regular educational environment should occur only when the nature or severity of the disability is such that education in regular classes, with the use of appropriate supplementary aids and services cannot be achieved satisfactorily."



This position statement on Inclusion was proposed by Illinois State Board of Education in April of 1992. As defined by Robert Leininger, Inclusion is assumed unless educational needs cannot be satisfactorily met in the classroom. This assumption corresponds to parameters developed in a recent California court case(Holland). In the California case, children must remain in grade level classrooms if their educational needs can be satisfactorily met there with the aid of supplemental services even if a self contained placement is superior academically.

The initial paragraph of the proposed ISBE definition addresses ethical and social values of keeping all children together in the same classroom. Thus inclusion is assumed on the basis of a value. The value of keeping all children together is greater than the value of providing a superior academic experience in a separate setting. This position represents a change from earlier ideas about educating children with disabilities.

### Early Special Education Practices

Until the early 1970's, very few children with disabilities had an opportunity for any kind of education (Villa, Thousand, Paolucci-Whitcomb, Nevins, 1990). In fact, public school officials used a variety of strategies to keep these children out of school. Using compulsory attendance laws of the time, officials excluded children with disabilities by refusing to admit them until a mental age of five years was reached. They also expelled them for abnormal behavior and on the basis children with disabilities could not benefit from any kind of educational experience ( Weintraub, et. al., 7-8). Although some private programs existed, they served children with mild to moderate disabilities. In 1948, educational

services were provided for 12% of children with disabilities, in 1963, 21%, in 1968, 38% and in 1974, 83% (Thomas, 3-4).

### Court and legislative action create Special Education

In 1972, a class action suit was filed on behalf of all retarded persons aged 6 years through 21 years in the State of Pennsylvania. This suit, filed by Pennsylvania Association for Retarded Citizens (PARC), accused the State of denying access to a free public education. The suit charged schools were not assuming any responsibility for the handicapped, schools had postponed admittance until certain criteria were met, and finally, schools had excluded children based on grounds the disability prevented any benefit from education. (Thomas, 5).

The US. Supreme court, in its review of the case, established three critical points which guided its final decision. They were 1.) children who have mental retardation can benefit from an educational program, 2.) their educational program must be individualized in order to meet unique needs, and 3.) provision of services in early years increases the likelihood and rate of progress (Thomas, 4).

The final decision in the PARC case was based on the landmark desegregation case of *Brown v Board of Education of Topeka* in 1954 which held "education is a right which must be made available to all on equal terms." (Thomas, 4). In PARC the Court held no child could be denied access to education without due process of law, children with disabilities are capable of benefiting from education, children with disabilities are entitled to a free public education, and regular classrooms are preferable to a segregated program (Thomas, 5). In addition to outlining these basic rights, the Court defined appropriate

procedural safeguards including assurances of parental notification and consent in all actions concerning their child. (Weintraub, et. al., 10).

In 1972, the rights of handicapped children were reviewed in *Mills v. Board of Education of the District of Columbia*. Mills charged schools with failure to provide an education to children with disabilities like "slight brain damage, hyperactive behavior, epilepsy, mental retardation and orthopedic handicaps." (Weintraub, et. al, 9) The Mills decision extended the right to a public education to all children of varying disabilities. It held all children were to be provided a public education, schools must identify all unserved children within its jurisdiction, and programs for the handicapped could not be denied based on financial burden (Weintraub, et. al., 9) .

On September 23, 1973, Congress enacted the Rehabilitation Act of 1973. Section 504 of this act, is the first federal civil rights law protecting the handicapped. Section 504 clearly prohibits any federally aided program from discriminating or excluding an individual due to a handicapping condition. This law assures rights of a minority group so the Office of Civil Rights (OCR), Department of Education assumed responsibility for development and enforcement of regulations. Four years later on May 4, 1977, regulations were issued. Section 504 defines limitation of a major life activity as a key factor in identification of discrimination. Learning is considered to be such an activity. This argument established the responsibility of public schools to provide a public education for those with handicaps that is as non restrictive as possible.

Congress established the following provisions in Section 504.

1. requires provision of the same aids, benefits, and services as afforded the non handicapped
2. establishes concept of least restrictive environment, limiting segregation to cases where individual needs require it
3. requires segregated programs be equal to those afford non handicapped
4. requires any agency supported by federal aid to identify those individuals considered handicapped in an effort to inform them of their rights.
5. requires provision of an appropriate education at public expense regardless of the nature or severity of the identified handicap
6. establishes procedural safeguards which include timely notice and consent prior to any proposed action on behalf of a handicapped individual (Thomas, 12).

In 1975, Congress enacted the *Education For All Handicapped Children Act* (P. L. 94-142). This statute incorporated some aspects of Section 504 and guaranteed American children with disabilities a free appropriate public education in the least restrictive setting at public expense. Public Law 94-142 specifically identified handicapping conditions covered by law, established requirements for identification and placement of all eligible children, clarified roles of parents within a complex process and established need to assure adequate notification, participation and consent in all decision making (Thomas, 14). In 1990, EHCA was amended, authorizing its provisions and renaming it the Individuals with Disabilities Education Act or IDEA.

### Least Restrictive Environment

The principle of Least Restrictive Environment (LRE) although not specifically named had been studied during the 1960's and 70's. In 1962, Maynard Reynolds established the concept of a service continuum, with services directly related to severity of handicap. Reynolds describes potentially damaging effects of segregation and categorization. In 1968, Lloyd Dunn proposed the concept of a special education resource program, a model for children with mild disabilities in which they would remain in grade level classrooms for most of the day. Stan Deno in 1970, described a "cascade of services" ranging from least restrictive to most restrictive setting depending on the severity of need. The LRE concept evolved emphasizing the essential practice of "normalization" and the basic civil rights of this minority population.

The concept of LRE is embedded in PL 94-142 where it states that "removal from the regular education environment is to occur only when the nature and severity of the handicap is such that education in regular classes with the use of supplementary aids cannot be achieved satisfactorily " [Sec. 612950 9B] (Gartner, et.al., 370)

#### National interest in LRE intensifies.

In November, 1986, Madeline Will, Assistant Secretary in the United States Department of education's Office of Special Education and Rehabilitative Services (OSERS) developed a white paper on special education. The paper was titled "Educating Students With Learning Problems---A Shared Responsibility." (Will, 1986)

Will defined four main problems with current Special Education programs:

1. Special and regular education operate as a dual system that diminishes the role of the regular classroom teacher by placing students with learning problems in special programs;
2. Distinct categorical programs result in fragmented services to children;
3. Students in special programs who are segregated from their peers suffer from poor self esteem and negative attitudes toward school and learning;
4. Eligibility requirements of special programs turn a "potential partnership" between parents and schools into a "series of adversarial, hit and run encounters" over the placement of children.

After identifying the problems, Madeline Will offered some solutions (1986). She suggested a unified educational system where technologies are shared by specialists and generalists and where adaptations are made within the regular program of instruction. Will says most effective educational programs for those with disabilities include increased instructional time, building based support systems of classroom teachers, site based management of special programs, and increased use of new instructional approaches. This, she believes, can be accomplished only through a partnership between regular and special education. (Will, 1-17)

Madeline Will's analysis is complementary to much of the current high performance school restructuring literature. Wayne Sailor, California Research Institute, San Francisco State University identified four basic strategies in that literature. These are: school organizational autonomy, site-based management, shared decision-making, full infusion and coordination of categorical resources and community participation in the life of the school. (Sailor, 1989)

### How will Inclusion work?

Full infusion and coordination of categorical services is a revolutionary concept in special education service delivery. It will work in two ways (Sailor, 1991):

1. Children who are now labeled and taught separately will return to the mainstream and
2. Pro-active services will be provided at the classroom level allowing more children to succeed in mainstream classrooms.

Inclusion is the term that most closely relates to the infusion and coordination of categorical services into the mainstream (Thousand, J.S., 1986). Other important terms are Regular Education Initiative (REI) mainstreaming and integration. In 1991, Ms. Gail Lieberman, assistant superintendent, Department of Special Education wrote to Directors of Special Education re: REI.

In ISBE Memorandum #91-69M ( December 2, 1991) Ms Leiberman offered the ISBE definition of REI as "a concept which focused on encouraging special education and standard curriculum personnel to work together to provide the best education possible for all students."

Robert Leininger, Illinois State Superintendent of Education defined the working parameters of inclusion. (Leininger, 1991) "Inclusion is not a federal or state mandate, but rather a state-of-the-art term for a fully integrated site. Inclusion means that students with disabilities of all levels of severity are included in the regular education classroom of their home school for their full day, with supports and services generally provided within the class during the regular school day. This program can work only if the supports and supplemental services required by

the IEP are provided and managed appropriately, and faculty work in collaborative manner.

A broader approach would be an integrated curriculum, with a focus on the home school, not necessarily the individual classroom or a full inclusion setting. The student may need a significantly different curriculum or instructional approach during a major portion of the day. If that is the case, the student would be integrated with his or her age appropriate peers during the day in the home school as appropriate but not necessarily full time in the regular classroom.

Again, the appropriate educational setting to provide services set forth in student's IEP must be determined individually and annually. No single statement of service provision and service site is appropriate for all children with disabilities." (C. Robert Leininger, 1992).

#### Summary. and Response to defining the guidelines and parameters of Inclusion

Inclusion is the practice of educating children with disabilities in the grade level classroom even when their disabilities are severe. The parameters and guidelines for the practice come from the roots of Special Education practices in the United States. Those roots entwine with American concern for equity in education for all children and can be seen in the PARC case filed in 1972 in Pennsylvania. The resolution of that case was based in part on the landmark desegregation case of *Brown v Board of Education of Topeka* (Villa, Thousand, Paolucci-Whitcomb, Nevins, 1990) which held "education is a right which must be made available to all on equal terms." statement. Section 504 of the Rehabilitation Act of 1973, protects individuals with disabilities from discrimination or exclusion in any major life



activity. Learning is defined as a major life activity and public schools became clearly responsible for the provision of an education for children with disabilities. Section 504 assures the rights of a minority group so the Office of Civil Rights, Department of Education assumed responsibility for implementation. Right from the very beginning, Special Education was an equal rights issue. Inclusion is an extension of the concepts of equity and civil rights that have guided the development of Special Education from its' initiation.

In 1986, Madeline Will developed a white paper on Special Education (Will, 1986). She identified problems with Special Education and targeted separate status of education for students with disabilities as an area for attention. She commented on the exclusionary nature of a separate Special Education system and negative impact on children. This paper signaled the start of a revolution in Special Education placement practices. Educators began questioning separating or pulling out children for special services. Even children with severe disabilities might be served in mainstream classrooms if adequate supports and services are supplied.

The guidelines and parameters for the current practice of inclusion are generated from considerations of civil rights and equity issues. These issues may create a tension with the need to provide an appropriate education. They also will impact grade level classrooms.

The history offered in this section shows the basis of inclusion is theoretical. It will affect millions of children over the next few years. There is a need for empirical observations of its impact on children, teachers and classrooms as this practice is implemented.

How has the practice of inclusion affected the rights of children with and without disabilities in grade level classrooms?

As children with disabilities were included in grade level classrooms, many questions were generated about how it would impact those classrooms. These issues led directly to more court cases. The resolution of those cases is based on judicial interpretations of Free and Appropriate Public Education and Least Restrictive Environment (Anderson, 1989). Appropriate refers to the ability of an educational setting or set of services to provide an educational program that will appropriately serve the needs of a student with disabilities. LRE is the educational setting that most resembles the one the child would be in if not handicapped. There is a continuing tension between the need to provide services for a child with disabilities that meet both of these standards. This tension becomes the focal point for resolution of the placement disputes (Anderson, 1989).

Another source of tension is the concern for the rights of children in classrooms whether they are disabled or not. The changes in ordinary schools will affect the resources and services available to all children. The next section of the review analyzes court cases for an answer to this question.

Rowley defines statutory parameters.

In 1982, the US. Supreme court ("Rowley") developed a two part analysis to resolve a Special Education dispute. Essentially the court assessed if the district had provided all statutory mandated procedures to the parents and student and whether the district plan provided the student with reasonable educational benefits.

As disputes related to student placement and programming decisions began to reach the courts, this analysis became the first step in resolutions.

In Lachman, (1982) the court applied the "Rowley" analysis to resolve the dispute. In reasoning through the case, the Illinois seventh circuit court concludes IDEA does not give parents the right to compel a district to use specific teaching strategies or educational technologies for a student with disabilities. In this case, educators are supported as having the professional skills necessary to make educational programming choices for their students.

Additional cases (Daniel R.R., 1989) provided opportunities for further analysis. In Daniel R.R., the dispute focused on placement decisions. A two part test was developed to resolve the conflict between least restrictive placement and the need to provide an appropriate education for children with disabilities. First, it must be decided if education in the regular classroom can be achieved for a child with the use of supplemental aids and services. If it cannot, then the second question becomes whether the school has integrated the student with non disabled peers to the maximum extent appropriate. Schools are not required to provide every conceivable aid or service to assist the child. Teachers are not required to devote all or most of their time to one special education student or to modify the regular classroom curriculum beyond recognition. Still the court held important benefits are available for disabled children in grade level classrooms. These benefits include social and language modeling and may mean more than academic programs alone. The general needs of children in the classroom are discussed. If the special education student is disruptive to grade level education, then inclusion is not an appropriate option. The child with disabilities is considered disruptive if he takes

so much of the classroom teachers time that needs of non disabled learners receive significantly diminished attention because of his presence.

#### Limits are placed on resource allocation

In Barnett v. Fairfax County School Board, (1991), a school did not have to develop an expensive program at the child's neighborhood school. This kind of expense could mean an unfair distribution of district and special education resources. The district was allowed to educate the child at another school within its' boundaries. A Central program was an economic necessity for the district. The central program was considered satisfactory educationally (Barnett). In Schult v. Mankato Independent School District No. 77, 1991, the district did not have to renovate a neighborhood school to make it wheelchair accessible in order to serve a child with disabilities. The child was served at another school within the district.

#### Greer defines further parameters

Additional placement disputes allowed the courts to continue their analysis. In Greer v. Rome City School District, 1991, the court adopted the Daniel R. R. two part test as the basis for further thinking. First, it must be decided if education in the regular classroom can be achieved for a child with the use of supplemental aids and services. If it cannot, then the second question becomes whether the school has integrated the student with non disabled peers to the maximum extent appropriate. In their analysis the court stressed 1) the nature and severity of the student's disability; 2) the student's needs and abilities; and 3) the school district's response to those needs.

In the Greer analysis the court defined a non exhaustive list of factors to consider when determining if the grade level classroom placement would be beneficial. These factors included: 1) a comparison of the educational benefits ( including social, language and role modeling) available to the child in the regular classroom with supplements and in the special education classroom; 2) impact of the special education child on the regular classroom environment, as well as upon the education of non disabled students; and 3) costs involved in educating the child in regular classroom with supplemental aids.

The Greer case discussion commented on "deference accorded the school's choice of methodology ". This phrase indicates the court's awareness of educational expertise as a factor in determining placement. The judges referred to the child's progress as an indicator of placement and educational programs. If more progress could be made in the special education classroom, then the placement should be there. In 1992, a court in California took a different view of how placement decisions should be made.

#### Holland establishes inclusion as preferable

On March 2, 1992 a federal court judge ordered a California school district to place a nine year old child with an IQ of 44 in a regular second grade classroom at her neighbor hood school ( Board of Education, Sacramento City Unified School District v Holland, By and Through Holland, 1992). The child was described as well behaved and popular by witnesses in the case. Some testimony from the due process hearing proceeding was especially important to the court. Rachel Holland had attended a private Jewish school where she was placed in a regular classroom. The teachers and parents described the social and academic benefits of this

placement to the hearing officer. They stated that Rachel had benefited enormously from her involvement with her non-handicapped peers. The districts' argument was based on Rachel's disability. They claimed the child's disability was so severe that ordinary classroom placement would not meet her educational needs even with supplemental aids and services.

In their analysis of the case, the court adopted the two step test developed in Daniel R. R.. First they considered if the child's placement could be satisfactorily achieved with support. Second they considered if the child's proposed placement would provide opportunities for integration to the maximum extent appropriate.

To resolve the dispute, the court identified four factors to be considered in determining the least restrictive placement for Rachel. These factors are:

1. What educational benefits are available to the child in the regular classroom (with supplemental aids and services) compared to educational benefits of a special education classroom?
2. What nonacademic benefits will the child receive from interacting with non disabled children?
3. What is the child's effect on the regular education teacher and other children in the regular classroom.
4. What are the costs of the supplementary aids and services necessary to support the child in a regular? (The Special Educator, 1992)

The court balanced the social benefits of mainstream placement with the academic ones. They held a child with disabilities should be placed in a grade level classroom if they can receive a satisfactory education there, even if it is not the best placement academic setting for that child. The social skills a child with disabilities

may learn through imitation and modeling are so important they tip the balance in favor of the less restrictive placement if it is workable. These nonacademic benefits may translate into improved academic performance later on.

In their discussion, the court maintained the need to consider effects on other children. If children in class are disadvantaged by losing a share of the teacher's attention after reasonable efforts to provide support have been made, then this is a factor in considering placement. Cost is also a factor. If cost is so great that it would significantly impact other district children then inclusion is not an appropriate choice (Holland).

Curriculum modification was also considered. The court held curriculum modification alone could not be the decisive factor in determining placement. However, curriculum adaptation can be considered in combination with other factors when determining a placement option (Holland).

#### Summary and Response to rights of children with and without disabilities in the classroom

The rights of children with and without disabilities have been considered in court cases related to inclusion or to placement in the least restrictive environments. Courts guidelines for placement decisions related to children with disabilities consider the rights of children with and without disabilities and the amount of resources available for all children. Social and educational benefits were weighed and the latest cases seem to support the social value of inclusive placements for children with disabilities.

Social and language benefits of mainstream placement are compared with academic ones. A child with disabilities should be placed in a grade level classroom

if they can receive a satisfactory education there, even if it is not the best placement academic setting for that child (Holland).

The effect on other children is also considered. If children in the class are losing a significant share of the teacher's attention after reasonable efforts to provide support have been made, this can be a reason not to place the child with disabilities in the grade level classroom. Cost is also a factor. If the cost is so great that it would significantly impact other children in the district than inclusion is not an appropriate choice (Ibid.).

Children with disabilities have a right to a public education in the least restrictive environment possible. While various standards are discussed, the California federal court established grade level placement as preferable if the education available there was satisfactory. Satisfactory education in a grade level classroom was preferable to a better academic experience in a separated classroom.

The rights of children without disabilities are also considered. Children without disabilities are protected in the instance that inclusion takes a significant portion of district or classroom resources.

These findings are significant to this study because they establish the need for classroom based data. Court and professional judgments are currently made on the basis of reasoning and predicted results. There is a need for school and classroom based information of all kinds to support decisions.



## Review of Literature and Research Related to Educational Value of Inclusion

The professional literature now available is reviewed in this section. This section will focus on answering questions about classroom experiences of children when children with disabilities are included in grade level classes.

### What benefits are reported for children in classrooms where children with disabilities have been included?

Much of the literature related to the practice of inclusion focuses on philosophical, ethical and moral issues. One education system is advocated for all children on the basis of civil rights (Gilhool, 1986). Mary Falvey (Falvey, 1989) says inclusion is advocated because it is based on the value embedded in PL 94-142. Inclusion is better because separate is not equal again based on values embedded in American court cases. She believes inclusion is not based on educational practices but rather on the values embedded in relevant laws and court cases (Ibid).

Education in the least restrictive environment is cited in Public Law 94-142, the Education for All Handicapped Children's Act of 1975. The Bureau of Education for the Handicapped took strong actions to make quality public education for students with even the most severe handicaps a national priority (Sontag, 1989).

### Self Esteem

Some writers say special education decreases student self esteem.(Snow J.,& Forest, M.,1987). Judith Snow and Marsha Forest (1987) refer to the system of special education as a "deficit-let's fix it model". They state special education regards people with disabilities as somehow less than normal. This attitude is

communicated to children with harmful results. Inclusion in grade level classrooms will have the opposite effect. It will positively impact self esteem of children with disabilities (Ibid.).

Others argue the best educational practices focus on student abilities, quality education for all and educational equity which can only be provided under one system. (Freagon, S., Kinkaid, M. and Keiser, 1990). One system means all children will be taught in their neighborhood schools (Ibid.). An attitude of acceptance for all children reflects not only student performance outcomes but system values as well.

### Improved social values

Improved social values are cited as a reason for inclusion of children with disabilities (Gartner and Lipsky, 1987). Public school education is the catalyst for promoting societal values. It is predicted children without disabilities and their parents who participate in inclusion programs will experience a positive change in their attitudes of acceptance for others who are different because of their participation (Ibid.).

Lou Brown describes problems our culture has experienced because of our tendency to isolate those with disabilities. He believes isolation has fed myths about disabilities and inclusion will help to dispel those myths (Brown, L. et al, 1991). Brown states the general public has had little insight into the abilities, natures or educability of citizens with disabilities because of this tendency. Ignorance has perpetuated the paid care-giver model for community inclusion even for individuals with mild disabilities.(Ibid.)

He believes average citizens continue to confuse mental retardation mental illness, multiple handicaps and other similar disabilities. Future neighbors employers, political leaders, health workers, etc. of children with disabilities, are students currently attending U. S, public schools (Ibid.). Our schools can be used to provide information about handicaps as well as giving our future leaders opportunities to develop relationships with our citizens with disabilities that will have life long impact (Ibid.).

### Quality of life

Writers also describe quality of life issues (Freagon, S., Wheeler, J., Brankin, G., McDaniel, L., Stern, L., Usilton, R. & Keiser, N., 1983 ) These writers believe there will be a change in the quality of life of disabled children if they are included in grade level classrooms. They predict that children and youth involved in integrated education are more likely to work in competitive jobs, participate in community environments, choose normal recreation outlets and have friends and support from peers not identified as having disabilities. Their quality of life will improve because of their participation in the normal life of their communities (Ibid.). Even if full participation is not possible for children with disabilities, their partial participation in age appropriate classrooms, is believed to improve their quality of life (Ibid.).

Another expected outcome of the inclusion of children with disabilities in public schools is more independence in the real world (Brown, L. Netupshi, J and Hamre Netupshi, S 1976). This is because instruction will take place in real life settings. Instruction will include experiences with real money in real stores,

traveling on real streets and in real cars in real life world settings (Ibid.). In addition, it is believed that the real life settings will facilitate horizontal "peer to peer" interactions (Ibid.).

### Summary and Response to predicted benefits of Inclusion

The literature of Special Education predicts many benefits for children with disabilities who are included in grade level classrooms. These benefits include: 1) Children with disabilities and their parents will have better self esteem because they are no longer separated from the mainstream population (Forest, Pierpoint and Snow, ), 2) They will have better and more competitive job placement, more normal recreation outlets and friends and support from peers not identified as having disabilities (Brown, 1989). 3) Their quality of life will improve because of their participation in the normal life of their communities. (Ibid.) 4) Even if full participation is not possible for children with disabilities, their partial participation in age appropriate classrooms, is believed to improve their quality of life (Ibid.). Another expected outcome of the inclusion of children with disabilities in public schools is more independence in the real world in every sphere. (Brown, L. Netupshi, J and Hamre Netupshi, S 1976).

There are predicted benefits for children without disabilities attending classes with children with disabilities. Our schools can be used to provide information about handicaps as well as giving our future leaders opportunities to develop relationships with our citizens with disabilities that will have life long impact. (Brown, 1989)

The outcomes of inclusive education listed in this section are all logical extensions of a philosophical position. A classroom study could provide valuable data based insights to educators and parents as they establish new practices in the field of special education.

Does nationally reported empirical research establish the educational value of inclusion for students with disabilities?

Does nationally reported research establish how inclusion affects learning opportunities for students without disabilities?

Cooperative learning can make a difference

Johnson and Johnson believe teaching strategies and support networks educators put in place will make a difference in both social and educational outcomes for all students who are learning in a heterogeneous setting. In classrooms, where needs of diverse learners are met, an emphasis on cooperative learning strategies and structures "results in more positive student-student relationships which are characterized by mutual liking, positive attitudes toward one another, mutual concern, friendships, alternatives, mutual feelings of obligation, support and acceptance, and desire to win each other's respect" (Johnson & Johnson, 1980).

Johnson and Johnson identify the following strategies as characteristic of cooperative learning:

- 1) Positive interdependence-students are invested in each others success.
- 2) Individual accountability-each student's individual progress is assured.
- 3) face to face interactions-group work insures verbal interactions and exchanges between group members
- 4) interpersonal and small group skills-students learn effective social skills for group work.,
- 5) group processing- group members work through group processes to assess their goals and if they are reaching them (Johnson & Johnson, 1980).

Other cooperative learning programs are suggested by writers such as Slavin (1990), and Kagan (1985). These educators believe students with disabilities can participate in cooperative learning groups on the same basis as their peers. Their tasks may be different, but the experience of group process and attendant benefits can be the same for all children.

Both participants gain in peer tutoring.

Cooperative learning strategies lend themselves to peer tutoring or cross age tutoring systems. Tutoring is a successful strategy for children with and without disabilities (Jenkins & Jenkins, 1987). Richard Villa and Jacqueline Thousand studied tutor and tutee relationships and documented some benefits to both participants (Villa & Thousand, 1990). These benefits include increased academic success, development of positive social interaction skills and higher self-esteem. The same researchers studied programs that seemed to effectively use peer tutoring

and found several characteristics to be keys to success: Programs that developed well organized strategies for recruiting, training, supervising and evaluating the effectiveness of peer tutors were successful (Villa & Thousand, 1990).

In addition to peer tutors, some programs use children without disabilities as peer buddies for their classmates with disabilities. Lou Brown(1989) suggests eleven ways that peer buddies can support their classmates with special needs.

These include:

Peer tutor	Neighbor
Eating companion	Extracurricular companion
Art, home economics,	After school project companion
Industrial arts, music,	Travel companion
PE. companion	
Regular class companion	

Social skills are necessary

The emphasis on social skills and social relationships is especially strong in the work of some Special Educators. Marsha Forest wrote an essay about the strength of relationships in lives of individuals with and without disabilities (Forest, 1989) The same concept can be seen in the circle of friends program. A circle of friends is a group of people who are all related in some significant way to a child with disabilities (Mount, Beeman, Ducharme, 1988). They all agree to meet on a regular basis and function as a support team for the child with disabilities. In an elementary school, a circle of friends may be a group of classmates who make a commitment to help a classmate with disabilities meet a goal.

Roberta Schnoor observed a student with moderate mental disabilities who was a member of a first grade classroom on a part time basis for over seven months. She interviewed classmates to find out how children think about school. First grade children without disabilities had a common framework for describing their school experience. They talked about "where you belong", "what you do" and "with whom you play". There were real differences between descriptors used by children with and without disabilities indicating a socially based difference in their experience of school

Johnson and Johnson (Johnson & Johnson, 1980) state a strong social skills curriculum is needed to support cooperative learning, peer tutoring and other interactions between students with disabilities and their grade level classmates. If that kind of social training is not available, then efforts to bring children with disabilities into classrooms may result in those children experiencing negative or patronizing attitudes.

Strain and Shores (1983) agree that social skills training is necessary when children with disabilities are placed in grade level classrooms .

If the right kind of training and preparation is available, non disabled students have demonstrated the ability to help children with severe disabilities develop skills (Meyer, L.; Fox, A.; Schermer, A.; Ketelsen, D.; Montan, N.; Maley, K.; and Cole, D.1987, Brinker, R.P., 1985)



## Summary and Response to impact on children established through research and related literature

Children without disabilities may benefit socially and educationally when children with disabilities are included in grade level classrooms (Villa & Thousand, 1990). These benefits include increased academic success, development of positive social interaction skills and higher self-esteem(Ibid.). Successful peer interactions depend on a strong social skills curriculum (Johnson & Johnson, 1980). This social skills curriculum will benefit children without disabilities and will also affect how successfully children with disabilities can be integrated into the classroom ( Strain & Fox 1976).

An empirical classroom study like this one can add to our knowledge about how children with and without disabilities interact in classroom settings. This information will be valuable as educators change grade level curriculums to include social skills curriculum needed for successful integration or inclusion experiences.

## Statement of Need based on Literature Review

Inclusion will affect millions of children over the next few years. Although the courts have considered many ramifications of inclusion on resource allocation and the structures of schools, there is a need for empirical observations of its impact on children, teachers and classrooms as implementation occurs. School and classroom based information of all kinds can be used to support decisions made for children.

An empirical classroom study like this one can add to our knowledge about how children with and without disabilities interact in classroom settings. This information will be valuable as educators change grade level curriculums to include social skills curriculum needed for successful integration or inclusion experiences.

### CHAPTER III

#### METHODS AND PROCEDURES

This chapter will outline methods and procedures used to gather data for the study. It will also describe procedures used to analyze the data and to answer the study's research questions. The purpose of the study is stated and the research questions are presented. The following techniques and procedures are specified: 1) population, 2) observational strategy 3) observational instrument 4) codes developed for the observation and 5) the analysis of the data gathered through observation.

#### Purpose of the Study

The purpose of this study was to develop a description of student, teacher and aide classroom experiences in one large, suburban school district where children with disabilities have been included in grade level classrooms. The focus was instructional strategies, tasks, structures and interactions between students and their instructors. The study described the amount of time spent in the following instructional structures: large group, small group, independent, one to one, peer directed, transition times, structured free time, unstructured free time and other. It determined how much time the included child is involved in the same instructional structures, how much time on task is exhibited by children with and without disabilities and how many opportunities to respond are provided for children with and without disabilities. It also studied how much task modification and instructional modification is done for the included child. It described how teacher, aide and peer attention is distributed to children with disabilities related to task engagement.

The findings of the study were of interest to parents, teachers and administrators who are beginning to include children with disabilities in grade level classrooms. There were implications for future teacher training and in service practices.

### Research Questions

- 1. How much time are children in grade level classrooms spending in various instructional structures in classrooms where children with disabilities are included?
- 1A. How much time are children without disabilities spending in various instructional structures?
- 1B. How much time are children with disabilities spending in the same instructional structures as their non-disabled classmates?
- 2. How much task modification for children with disabilities is witnessed in the classroom?
- 3. How much instructional modification for children with disabilities is witnessed in the classroom?
- 4. When children with disabilities are included in grade level classrooms, how much time are they spending on task ?
- 5. How is teacher, aide and peer attention distributed to children with disabilities related to task engagement?
- 6. Do children with disabilities have teacher initiated and self initiated opportunities to respond comparable to that of children without disabilities in grade level classroom?

## Population

The study was conducted in one large, suburban school district where children with disabilities have been included in grade level classrooms. A total of 17 classrooms located in three different elementary schools were used for observations. These classrooms were chosen because they were located in buildings where inclusion has been practiced for more than one year. Every classroom in the district located in a school where children with disabilities have been included for two years or more was included in the study. Several other classrooms in the district have included children with disabilities for the first time this year. They were not observed because the newness of the practice would impact the observations

The classes included approximately 491 children in grades 1 through 5. There were 32 children with disabilities in the observed classrooms. Disabilities ranged from moderate to severe in nature. The identified disabilities included Learning Disabilities, Behavioral Disorders, Physical Handicaps, Mental Retardation and Severe Learning Impairments. In the past, students with disabilities like these would have been placed in separate classrooms or separate buildings.

Before the study began, interviews were conducted with each classroom teacher. Basic information was gathered about the structure of the class, the teacher's educational background, the children who are included in the classroom and the services provided for the child with disabilities. This information was summarized in table form in Appendix A.

## Services Provided

Children with disabilities who are included in grade level classrooms remain eligible for special education services. The services are delivered in a structure that allows maximum participation in grade level classroom activities. Each student with disabilities remains on the case load of a special education teacher. This teacher is called an inclusion facilitator. She is assisted by a number of aides. The aides are assigned to a facilitator based on the needs of the children she serves. The facilitators work with the classroom teachers to adapt curriculum and instructional strategies for the children with disabilities. Aides are assigned specific duties to carry out the adaptations or to meet the needs of individual children in the study. A table below illustrates the number of children, teachers, inclusion facilitators and aides involved in the study.

## Observational Strategy

Two observers spent a minimum of ten 20 minute sessions in each classroom where children with moderate or severe disabilities are included. The first two observations were not included in the compilation of data. They were used to allow teachers and students to get used to the presence of observers. Observers visited classrooms on a random basis. They arrived unannounced in each classroom. Teachers were aware they were in the building, but not when or if they would be in a specific classroom on a specific day.

These classrooms were chosen because they were located in buildings where inclusion has been practiced for more than one year. Every classroom in the

district located in a school where children with disabilities have been included for two years or more was included in the study. Several other classrooms in the district have included children with disabilities for the first time this year. They were not observed because the newness of the practice would impact the observations

Observers used a computer program developed by Dr. Rick Van Acker at the University of Illinois (1991). Dr. Van Acker uses his program to assess behaviors in programs developed for children identified as Behavior Disordered. The program was reformatted to measure time spent in the following instructional structures: large group, small group, independent, one to one, peer directed (cooperative learning), transition, structured free time, unstructured free time and other by children with and without disabilities. The instructional strategies and tasks for children with and without disabilities were observed and measured using the following codes: same task/different instructional strategy, same task/different instructional strategy, similar task/same instructional strategy, similar task/different instructional strategy, different task/same strategy, different task/different strategy. Children with disabilities were observed and the amount of time spent on task active, on task passive, off task disruptive, off task, non disruptive and no task will be measured. The opportunity to respond to teacher, aide or peer directions were observed and measured using the code descriptors individual or group and motor or verbal response. Codes also described if student responses were self initiated or initiated by teacher or aide interaction.

### Observational Instrument

Observers carried a lap top computer with Dr. Van Ackers program on disk. The program allowed observers to use the computer keys to time or count specific classroom behaviors or activities. The codes identified above were developed into descriptions and specific computer key structures developed. Operational definitions for each code were adopted or adapted from Dr. Van Acker's unpublished work (1993), except for several codes which will be developed specifically for this study. A total of 35 keys were available in each observation. When the observers depress a computer key, the program began timing and recording within the designated key.

Each observer received training in the use of the observation instrument and the classroom results were compared for inter-rater reliability. Inter rater reliability was developed in one classroom specifically identified for this purpose. The results were not included in the study analysis. After inter rater reliability was developed, observers worked separately and completed ten observations in each classroom. The first two observations were not included in the data analysis. They were regarded as habituation observations.

### Observational Codes

Each of the 35 observational codes was separately defined. The code categories are group structure, instructional tasks and strategies, time on and off task, individual and group opportunities to respond(self initiated and in response to teacher questions), distribution of teacher and aide attention. Each code definition



corresponds to a specific key on the computer keyboard. When the key is depressed, the program timed the behavior or count the frequency.

**1. Group Structure.** This set of mutually exclusive codes relate to the nature of grouping within which the target child has been placed. Unless the target child is out of view (coded as /), one and only one group structure code must be displayed at all times. The same set of codes is developed for the rest of the class. Altogether 18 keys are used in this section. Only one key is depressed for the class activity. If the class is split in two groups, one of which contains the target child, there are two readings, if the class is split into more than two groups, a reading was developed for the target child and for the larger group of his classmates. Observation notes reflected this split. This set of codes is adopted from the work of Dr. Van Acker (1993).

(1) Large Group Structure - target is a part of the whole group or subgroup of 6 or more students with whom the teacher is directly engaged for instructional and managerial purposes.

Examples:

- the teacher is showing a film strip to the class as a whole.
- the teacher is presenting information about the science project to a group of children one of which is the target child

- the whole group is discussing plans for a school assembly with the teacher.

Non examples:

- the teacher is working with a group of 5 children (including the target child) discussing the elements of their reading assignment.(Should be coded as small group structure.)

- the teacher is walking up and down the aisles monitoring the children as they individually complete arithmetic worksheets.(Should be coded as independent seat work.)

(2) Small Group Structure - target child is a part of a small group of 5 or less students with whom the teacher is directly engaged for instructional or managerial purposes.

Examples:

- the teacher is administering a make-up test to four children of whom the target child is one while the other students are engaged in sustained silent reading.
- while the remaining students are engaged with worksheets at their desk, the teacher is drilling the target child and one other student on multiplication facts.

- the teacher is explaining how to do an art project to three children one of whom is the target child.

Non examples:

- the teacher is helping the target student with his homework assignment while the other students are working independently at their seats. (Individual teacher/student structure.)

- the target child is one of several students involved in a cooperative learning group activity. (Peer directed group structure)

(3) Peer Directed Group Structure - target child is assigned to an academic group with one or more peers. The intent of the grouping is to allow peers to instruct one another and/or to discuss subject matter. the teacher may or may not serve as a monitor. The teacher does not provide direct instruction.

Examples:

- the target is being drilled on multiplication flashcards by a (peer tutoring).

- the class is divided into 5 heterogeneous groups of 4 children each to share information on reports that each child is writing related to their cultural heritage (cooperative learning).

- students are divided into subgroups and provided materials to create murals for the classroom that depict different aspects of the curriculum for parent's night.

Non examples:

- the teacher is orally quizzing a group of three students on their spelling words.

(Small group structure)

- the target child and a classmate are playing chess at freetime as a part of a tournament organized and directly monitored by the teacher, (Structured free time)

(4) Individualized Teacher/Student Structure - the target child is directly interacting with the teacher either for academic, behavioral, or social purposes. For this code to be activated the teacher and child must either be alone or obviously separated from the rest of the group, or the demeanor of the conversation must be such that the intent of the conversation obviously is meant to be shared only with each other (e.g., speaking in exceptionally close proximity). Freetime activities are excluded from this code.

Examples:

- the teacher moves next to the target student and quietly says, "Nice job, Ray!" as she hands the target student his science report.

- the teacher takes the target child aside and discusses an infraction of the rules explores her feelings and discusses consequences.

- the target child is having difficulty understanding long division and the teacher explains each step in the process to the child individually.

Non examples:

- the teacher is playing a game of Connect Four with the target child at afternoon freetime. (Structured freetime)

- the teacher is monitoring the students as they complete an examination and stops by the target child's desk to check his work. She is there for several seconds and then moves on to another student. (Independent/isolated structure)

(5) Independent/Isolated Structure - target child is working on an assigned task. The task is intended to be completed without sustained interaction by the teacher or peers. That is, while the teacher may briefly stop to provide feedback(less than 5 seconds), sustained interaction is absent.

Examples:

- the students, including the target student, have been assigned to read silently at their desks.

- the entire class is completing an examination at their desks while the teacher monitors this task.

- the target child has completed his/her quiz and is sitting at his/her desk quietly looking out of the window waiting for the next task to be assigned.

Non examples:

- the target child is alone reading in the reading corner during recess. (unstructured freetime)

- lunch recess has just ended and the target child is sitting at his/her desk waiting for the afternoon's tasks to begin.(transition)

(6) Transition -the teacher has completed an academic task and the children are in between activities. This may be between modes of instruction (within a given subject area) or between subjects. Transition will also include the time between entering the classroom and the first academic instruction, time following the completion of academic instruction prior to lunch, time before the first academic instruction after lunch, and the time following academic instruction just prior to going home.

### Examples:

- the students have just completed watching a film in science class and the teacher is handing out a worksheet related to the film that each student must complete.
- the teacher has completed a discussion of the Mayan Indians and has instructed the children to prepare for recess.
- the children have been working on the arithmetic worksheets and the teacher instructs them to put away their papers and to get ready for language arts there are five minutes left before the final bell rings and the teacher has requested that the children clean their desks of all books and papers before dismissal.

### Non examples:

- at the end of the day the teacher allows the children to select an activity to play for the final 20 minutes. (Unstructured freetime)
- first thing in the morning the students are expected to take their seats and immediately begin writing the daily oral language sentences from the chalkboard. The target child has taken his seat and is writing his sentences.  
(independent/isolated structure)

(7) Structured Freetime - during a period of time specified for recreation and leisure time activities, the target child is engaged in an activity organized and supervised by the teacher. The teacher is within close proximity to the students and is actively engaged in the task or is readily available to give needed feedback or assistance.

Examples:

- the children are playing kick ball on the playground as a whole group with the teacher participating.
- the teacher has organized a board game for the children, one of whom is the target child, during freetime at the end of the day.
- during the Halloween party, the children are playing a team game of Holiday Lotto under the direction of the teacher.

Non Examples:

- the entire class is involved in a spelling bee under the teachers direction. (Large Group Structure)
- during freetime the children are allowed to play with any game or toy in the activity corner. (unstructured freetime)

(8) Unstructured Freetime - the children are engaged in a nonacademic activity of their choice. The teacher may or may not be present and/or monitoring



but is not directly involved in organizing and setting up the activities. The children are free to select activities and to come and go as they choose from various activities.

**Examples:**

- at recess the target child has chosen from the available activities to swing on the swing set.
- several children are playing on the playground with the target child while the playground monitors walk about the grounds.
- the target child is seated alone (by his choice) and is building with blocks in the freetime corner of the classroom.

**Non examples:**

- the children are participating in tournament to practice their vocabulary words with the teacher monitoring (Student Directed Group Structure)
- the target child is at his desk drawing pictures while waiting for the reading lesson to begin at the start of the school day. (Transition)

(9) Other Structure- activate this key for any grouping structure observed that does not qualify for inclusion in any of the code categories listed above. Should this code be needed during an observational session please indicate the conditions under which it was activated in the notes at the end of the session.

## 2 Instructional Tasks And Strategies

These codes are designed to measure the amount of task and instructional modification implemented for the child with disabilities in the grade level classroom. They were developed specifically for this study by the researcher. Only one key in this category should be depressed at any given time. The categories are constructed around task structure and instructional strategy. There are a total of six codes developed. They are : same task, same strategy, same task, different strategy, similar task, same strategy, similar task, different strategy, different task, same strategy, different task, different strategy.

1) Same task, same strategy: This key is depressed when the target child is engaged in the same task and same instructional strategy as the other children in the group.

Examples:

- the target child and his classmates are sitting at their desks listening to the teacher read a passage in their social studies textbook.

- the target child is sitting at a table with six other children participating in a spelling bee.

Non examples:

- the target child is listening to the passage and an aide is sitting with him (same task, different strategy)
- the target child is participating in the spelling bee, but his spelling list is different than the other children's (similar task, same strategy)

2) Same task, different strategy. This key is depressed when the target child is engaged in the same task but there is a different instructional strategy offered to other children in the class.

Examples:

- the target child is working on a mural with the other children but an aide is assisting him as he cuts out items to paste on the mural.
- the target child is working on a science project with the other children, but his directions are in the form of pictures rather than written.

**Non examples:**

- the target child is completing math problems independently at his seat with the other children, but his math problems are addition rather than multiplication (same strategy, similar task)

3) Similar task, same strategy, This key is depressed when the target child is engaged in a task that is similar to the class and the same strategy is used to teach it.

**Examples:**

- the children are all cutting out symbols of the Thanksgiving holiday, the target child has only the simpler forms to cut.

- the children are working in cooperative groups to read a story and answer questions. The target child has the same story written in simpler terms.

**Non Examples:**

- all the children are cutting and pasting holiday symbols. The target child is cutting and pasting with a peer, the peer cuts out all the shapes and the target child pastes only (similar task, different strategy)

4) Similar task, different strategy This key is depressed when the target child is engaged in a similar task to the class but there is a different strategy used to help him learn.

Examples:

- the children are reading about the civil war. The target child listens to the same passage on tape.

- the children are working in cooperative groups to complete a science experiment. The target child is working with a group and an aide assists him as he completes the steps in the experiment.

Non examples:

- the children are completing a math worksheet independently at their seats, the target child is coloring a picture independently at her seat. (different task, same strategy).

5) Different task, Same strategy This code is activated when the target child is engaged in a different task than the rest of the class but is learning in the same strategy structure.

**Examples:**

- the children are working in a cooperative group to complete a science experiment, the target child is assigned to collect and distribute the equipment.
- the children are working one to one with the teacher to develop their journals, the target child works one to one with an aide to learn shoe tying.

**Non examples:**

- the children are writing in their journals, the target child is keeping a journal of pictures and cuts and pastes independently during this time. (similar task, same strategy)

**Different Task, Different Strategy** This code is activated when the target child is engaged in a different task and the instructional strategy is different from the class or group.

**Examples:**

- the class is working on a unit on ancient history, the target child is in the library learning computer skills with an aide.

- the class is working in cooperative groups to read a story and develop written answers to a set of questions, the target child is cutting and pasting a holiday worksheet at her desk.

Non examples:

- the class is independently writing in their journals, the target child is using the computer to write in her journal. An aide is assisting her. (same task, different strategy)

- during structured freetime, the target child is assigned to a reading comprehension game with four other students. One of the students is assigned to read the questions aloud to the target child. (similar task, different strategy)

### 3. Time on Task

These codes are developed to describe how much time students with disabilities who are included in grade level classrooms spend on task . These codes are adapted from Dr. Van Acker's work (1993). They are similar in construct to his work but are set up to apply to different situations. Time spent on task active, on task passive, off task disruptive, off task non disruptive and no task will be measured. This group of keys is mutually exclusive. Only one key should be depressed at any given time. There are a total of five keys in this category.

1) On task active- Target student shows overt motor/gestural or vocal/verbal behavior that is related to the completion of the assigned task.

### Examples:

- target student is writing in his journal during English class as instructed.
- target student is working one on one with the teacher and makes frequent motor responses e.g., answering questions, asking the teacher or clarification on the material.
- the target child is manipulating a balance scale as he weighs an object in science class.

### Non Examples:

- the teacher has assigned students to complete a written worksheet related to filmstrip they just watched. The target student is working on a worksheet assigned earlier in the day so she won't have to take it for homework. (off-task)
- the target student has been working on a math worksheet when he stops working and raises his hand to obtain help from the teacher. (waiting)

2) On task passive- student appears to be attending to the instruction, however, task engagement must be inferred as no overt motor response beyond visual orientation towards teacher or instructional prop indicative of active engagement is observed. This code is also activated if the child is overtly engaged in behavior that



merely preparatory to the task at hand even though overt motor responding is observable.

**Examples:**

- the teacher is presenting information related to the French and Indian War and the target child is focused upon the teacher as she speaks.
- the target child is out of his seat sharpening a pencil to prepare for a math worksheet
- the target student is seated at his desk reading silently to himself from the social studies text.
- the target child is watching another student as that student reads aloud his report on reptiles to the class.

**Non examples:**

- the target student is seated at his desk reading his social studies text aloud to the class.(on task active)
- the target child is actively taking notes while the teacher presents information in science class. ( on task active)

- the target child has been assigned to complete a worksheet during this task he is watching the teacher instead of writing. (off task)

3) No task demand- target student has not been assigned a specific academic task. "No task demand" should be activated whenever the target student is assigned to freetime or other nonacademic task with the exception of those times the student is assigned to time out as a consequence for behavior.

Examples:

- target student is engaged in transition time from math to English.

- the target student has completed the assigned task and is ready for the next task which has not yet been assigned.

- the target student has been given freetime.

4) Off task-target student is assigned to a task but is not actively engaged in the performance of that task nor is he indicating in an acceptable fashion that he wishes teacher assistance. The target student need not be disruptive to be considered off task.

### Examples:

- the teacher is lecturing but the target student is looking out the window.
- the target student is supposed to complete a worksheet, but he is talking to another student.
- while the class is reading a chapter from their history text the target child is looking at the pictures in an incorrect chapter.

### Non examples:

- the target child has completed the assigned task and has not been told what to do until the rest of the students have completed their work., (no task demand)

-the target child has been provided with a folder of worksheets that can be completed whenever she has finished other assigned work. She initiates completion of one worksheet when she finishes her assigned art project.(on task active)

5) Off task disruptive- target student is assigned to a task but is not actively engaged in the performance of that task nor is he indicating in an acceptable fashion that he wishes teacher assistance. In addition, the target student is engaged in activities that disrupt the ordinary atmosphere of the classroom.

These activities include the following:

- A) Physical Aggression-target child makes or attempts to make physical contact (personally or through use of inanimate objects) with a teacher or peer or peers in an effort to harm or inflict injury.
- B) Verbal Aggression-Target student states or threatens that she or he will harm or injure a teacher or peer physically.
- C) Physically inappropriate-motor-gestural acts (e.g. gestures, making faces) that are directed towards a teacher or peer or peers or that are generated in response to the actions of a peer or peers that are inappropriate for the classroom setting. This could include acts of aggression directed at inanimate objects that occur as the direct result of an overt interaction with a peer or peers.
- D) Verbal Inappropriate-Verbalizations which are offensive in nature either because of their content, or the manner in which they are delivered, that are directed towards a teacher or peer or peers or that are generated in response to the actions of a peer or peers.
- E) Other Inappropriate-Physical and/or verbal behavior emitted by the target child not directed towards or in response to others. This would include actions directed towards unspecified causes or towards inanimate objects.

#### 4. Opportunity to Respond

These codes are developed to describe the kinds of opportunities to respond available to children with and without disabilities in grade level classrooms where children with disabilities have been included. The opportunity to respond to teacher

or aide directions will be recorded in both verbal and motor modalities. The opportunities offered to the group and to the target child will both be counted. In addition to opportunities to respond, self initiated responses will also be counted. Self initiated responses will be counted for the target child and the group.

These keys are set up as frequency keys and will count rather than time response. Every time the observer sees a specific behavior, she will depress the appropriate key. The computer program will keep count of the frequency of these behaviors.

1) Verbal opportunity to respond- Target child or group member is selected by the teacher to respond to an academic question or request, regardless of whether or not she or he has volunteered.

2) Verbal Response (self initiated)-target child or member of the group calls out an academic task related response without first being selected by the teacher to respond or the target student or member of the group signals by raising his hand or through some other sanctioned signal his desire to answer an academic question or contribute to the class/group discussion.

3) Motor opportunity to respond- Target child or member of group is directed by the teacher or aide to follow some academic or behavioral action. Writing, or moving into a transitional activity could fit into this category.

### Distribution of Teacher, Aide and Peer Attention

These codes are activated to describe the kind of attention received by the target child while in the classroom. These codes are developed specifically for this study by the researcher. Only one key should be depressed at any given time.

**Teacher Attention:** This key is depressed when the teacher is working with the target student in any structure. The teacher should clearly be the one who is directing the target student's learning at the time.

Examples:

- The target student is sitting in a large classroom group listening to the teacher give direction. The aide is standing at the back of the classroom, generally available.
- The target student is working in a small group of children seated at a table with the teacher.

**Aide Attention:** This key is depressed when the aide is working with the target student in any structure. The aide should clearly be the one who is directing the target student's learning at the time.

Example:

- The aide is seated next to the target student as he listens to the teacher give direction.
- The target student is working in a small group of students led by the aide.

**Peer Attention:** This key should be depressed when the target student is working in a cooperative group with his peers.

- The children are all playing Lotto, the target child is playing in a group of four children.
- The children are enjoying freetime, the target child is accompanied by a classmate who is assigned to help her during freetime.

**6. Aide Interactions:** These two codes count the frequency of aide interactions with the target child and with other members of the class. Every time the aide initiates or responds to a student using either a verbal or motor response, these keys will be depressed. A separate count is maintained for the target child and the rest of the classroom students. In the analysis, averages of the aide's responses to other class members will be compared with the frequency of aide responses to the target child.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

#### Introduction

Least Restrictive Environment (LRE) has always been a point of concern in American Special Education. The very first statutory requirements for the education of children with disabilities describe the provision of a free and appropriate education (FAPE) in the least restrictive environment (LRE) (94-142, 1975). The concept of LRE is embedded in PL 94-142 where it states that "removal from the regular education environment is to occur only when the nature and severity of the handicap is such that education in regular classes with the use of supplementary aids cannot be achieved satisfactorily' [Sec. 612950 9B)] ."

(Gartner, et.al., 370) Inclusion is the term describing educational practices used to teach children with moderate or severe disabilities in the grade level mainstream education classrooms.

If implemented nationally, inclusion will affect millions of children over the next few years. Courts have considered many ramifications of inclusion on resource allocation and the structures of schools, special educators are predicting many benefits for children from the practice. Still a review of the literature shows few studies documenting the experiences of children as inclusion is implemented. There is an identified need for empirical observations of its impact on children, teachers and classrooms as implementation occurs.

The purpose of this study was to describe classroom experiences of students, teachers and aides in grade level classrooms where children with moderate



to severe disabilities have been included. Classroom observations included instructional structures ,time on task and opportunities to respond for children with and without disabilities. The study described the amount of time spent in the following instructional structures: large group, small group, independent, one to one, peer directed, transition times, structured free time, unstructured free time and other. It determined how much time the included child is involved in the same instructional structures, how much time on task is exhibited by children with and without disabilities and how many opportunities to respond are provided for children with and without disabilities It will also study how much task modification and instructional modification is done for the included child. It described how teacher, aide and peer attention is distributed to children with disabilities related to task engagement.

The findings of the study are of interest to parents, teachers and administrators who are beginning to include children with disabilities in grade level classrooms. They are also of interest to all school personnel who are beginning to think about serving children with diverse needs in the classroom. There are implications for future teacher training and in service practices.

The data obtained from classroom observations are presented and analyzed in this chapter. Implications of the findings are cited and discussed.

Information presented was collected in 17 classrooms in 170 separate observations. The data for each classroom were analyzed separately to find classroom means for each category and all data was analyzed to find the means for the district. Graphs were used to efficiently show the findings. Graphs depicted categories of data, mean scores for the district, mean scores for each classroom and

frequencies of data across the district. Information is grouped to respond to each of the six research questions. Each section reviewed all of the collected data. In a final summary, findings are summarized by section. An analysis used findings to restate findings, identify trends and discuss implications of findings.

### Observation Data

The data for this study was collected in seventeen classrooms during 170 separate observations. The study included 32 children with disabilities and 491 students without disabilities. All seventeen classrooms were located in three elementary schools in one large suburban district close to Chicago. There were a total of thirteen elementary schools in the district, and 208 elementary classrooms within the schools. Over 5,000 children are served in the district in grades 1-5.

### Demographics

The observed classrooms were located in three elementary schools in one large suburban school district located in DuPage county close to the city of Chicago. The children with disabilities were challenged by disabilities ranging from mild to severe. Twenty one children were identified as learning disabled. Of these, three had an additional identified disability. These additional identified disabilities were Behavior Disorder, Physical Handicapping condition and Speech Language Impaired. Two children were identified as Behavior Disordered. Five children were identified as Educable Mentally Handicapped. One child was

identified as Physically Handicapped. Two children were identified as Speech Language Impaired and one child was identified as other. The children identified as disabled attended grade level classes for all or most of the day. They received support services while in the grade level classes. These included adapted physical education, occupational therapy, physical therapy, speech/language services, social work services, transportation and the support of special education aides or teachers.

### Analysis of Data

After completion of the observation process, the results were analyzed using the following principles:

Timed Event Codes: include group structure, instructional tasks and strategies, time on task and teacher, aide or peer attention. These will be analyzed for a percent of total time. Results will be presented in graph form for each classroom and for the district as a whole. Conclusions can then be drawn about the experiences available for children with disabilities in grade level classrooms within the study site.

Frequency Codes include verbal and motor opportunities to respond, self initiated or in response to teacher, aide or peer directions. These codes were presented in count form for children with disabilities and for the class as a whole. Comparisons were made between response frequencies gathered for children with and without disabilities. Comparisons were made between number of self initiated and teacher initiated verbal responses made by children with and without disabilities.

Conclusions were drawn about frequency and nature of verbal interactions initiated by students or by teachers in the seventeen classrooms used for the study.

### Compilation of Data

Once data was gathered, it was analyzed to find mean amount of time students from each classroom spent in various instructional structures. Then data from all classroom observations was used to calculate district wide means in each category.

Data used to answer research questions was presented as follows. The district mean percent of time spent in each of the various structures was shown in graph form. Findings for children with and without disabilities are summarized for each structure. Frequency graphs show the mean percent of time spent in each structure for every classroom. Each section compares the range of averages with the district average for the various instructional structures. A final summary presents findings for all research questions and compares and contrasts them with one another. Implications of the findings are developed and summarized.

**Research Question 1. How much time are children in grade level classrooms spending in various instructional structures in classrooms where children with disabilities are included?**

- **1A. How much time are children without disabilities spending in various instructional structures?**

General Distribution of time in various instructional structures for children without disabilities.

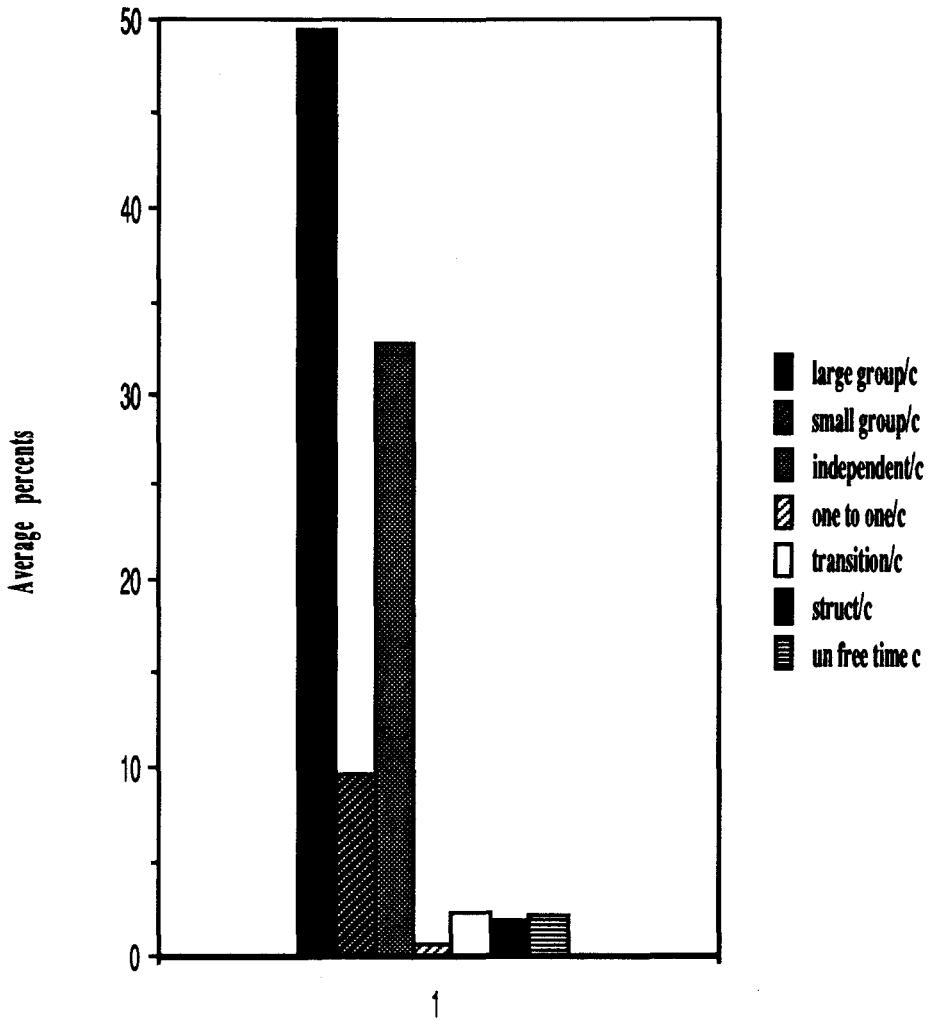
Classroom observations were constructed to measure the amount of time spent in various instructional structures by children with and without disabilities.

These structures were defined as large group, small group, independent, one to one, structured and unstructured free time, transition and other.

Children in grade level classrooms without disabilities spend more time in large group and independent work . Children without disabilities spend an average of 49.39% of their time in large group structures and 32.71% of their time in independent work. The total for these two categories is 82.1%. Children without disabilities spend 9.61% of their time in small group work, 2.31% of time in transition, 1.81% of time in structured free time and 2.06% in unstructured free time. They spend fractions in one to one (.56%) or in other activities (.10%).

Figure 1 shows distribution of time in various instructional structures by children without disabilities in the seventeen classrooms observed.

### Classroom time spent in various instructional structures



### District averages of various structures

Figure 1: Distribution of classroom time in 17 observed classrooms in various instructional structures by children without disabilities

Large group instructional structures.

Children without disabilities in grade level classrooms were observed spending the largest amount of their time in large group structures. In addition to reporting district means, distribution of classroom means is shown for large group participation in figure 2.

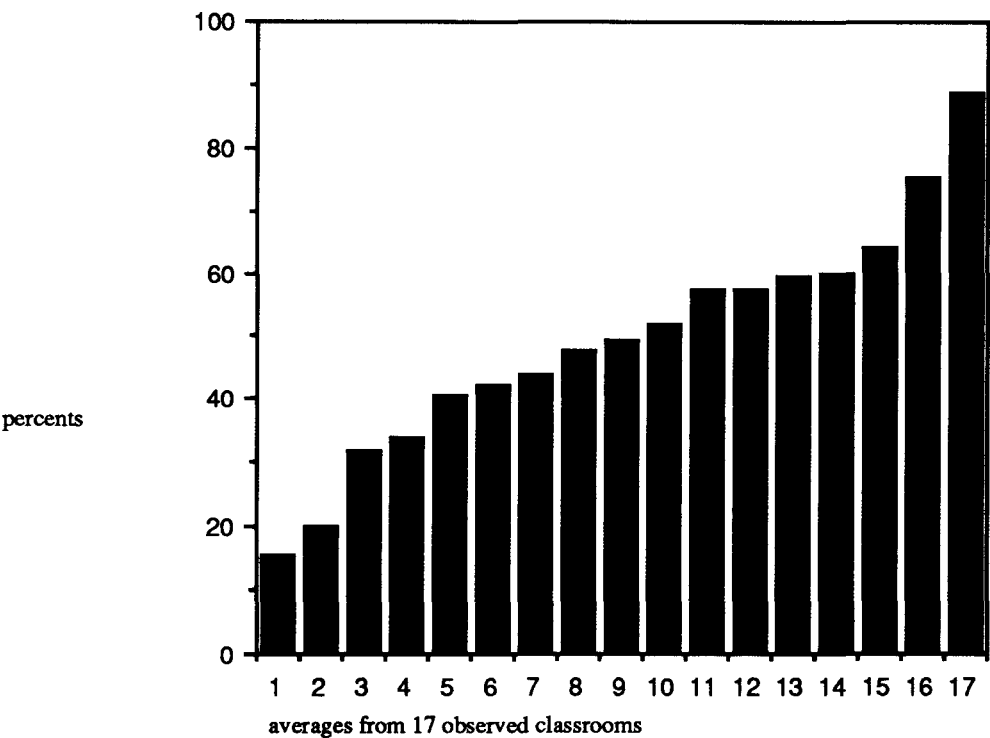


Figure 2: Classroom averages showing time spent in large groups by children without disabilities.

Classes were observed spending an average of 15.57% to 88.625% of their time in large group structures. The median ranking is 49.5%. The mean percent of time spent in large group structures is 49.39%.

#### Independent instructional structures.

Independent work is the second largest time commitment observed in the study throughout the district. Figure 3 shows the distribution of classroom averages for time spent in independent instructional structures.



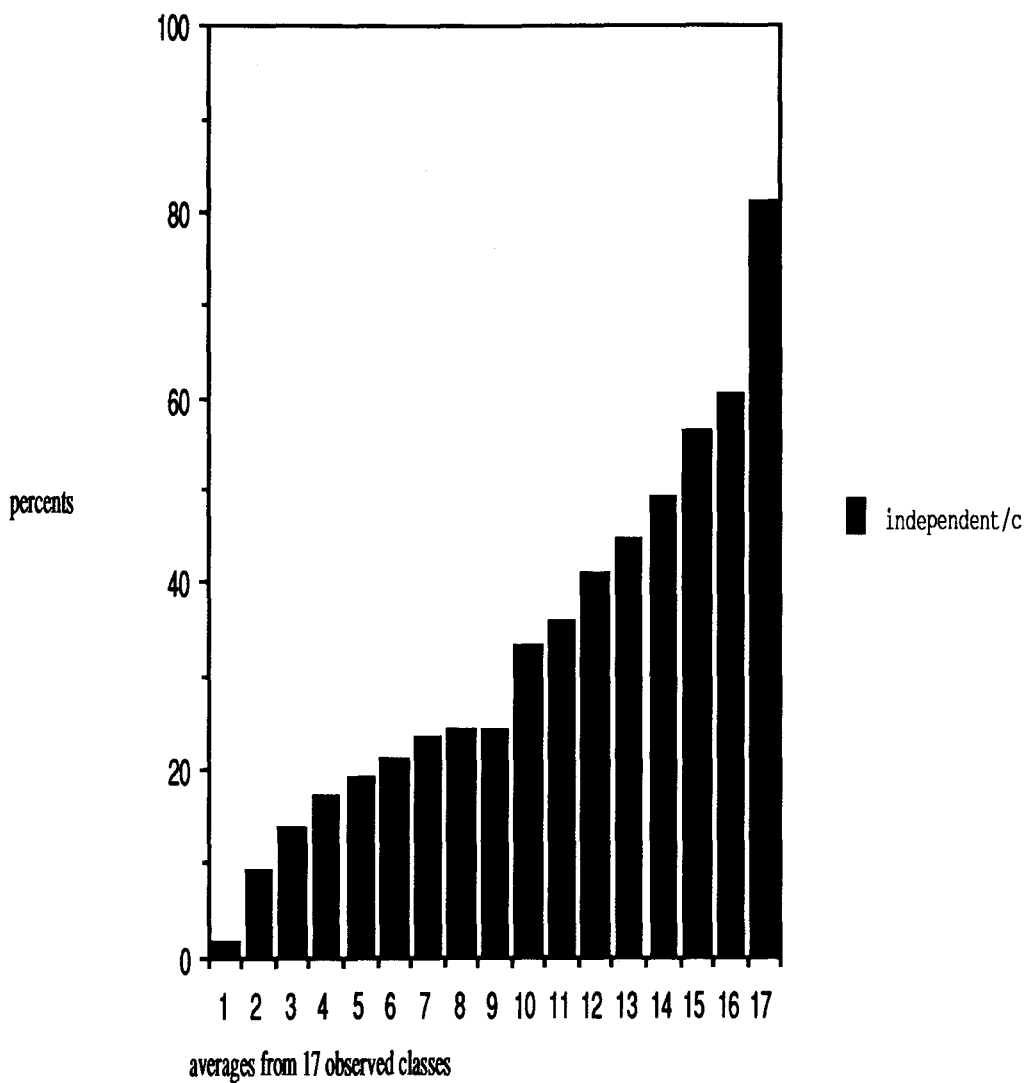


Figure 3: Classroom averages of time spent in independent instructional structures by children without disabilities

Classes spend an average of 32.71% of their time in independent study. The range of classroom averages is from 1.5% to 81.143% of their time. The median is 24.125%.

### Small group instruction.

The third largest commitment of time in the district is to small group instruction.

Students spend an average of 9.63% of their time in small groups across the district. There is a considerable range in the classroom averages. The median amount of time is 5.44%. In six classrooms, no time was spent in small group instruction during the observation periods. Four classrooms used small group structures for instruction for an average of 20% or more of the time observed. The largest amount of average time spent on small group instruction in any classroom was 36.125 %. In that classroom, 57.25% of the time was spent in large group instruction, 37.125% of the time was spent in small group instruction and 1.5% of time was spent in independent work. This profile is very different from the district average of 82.1% in large group or independent work and 9.63% in small group work.

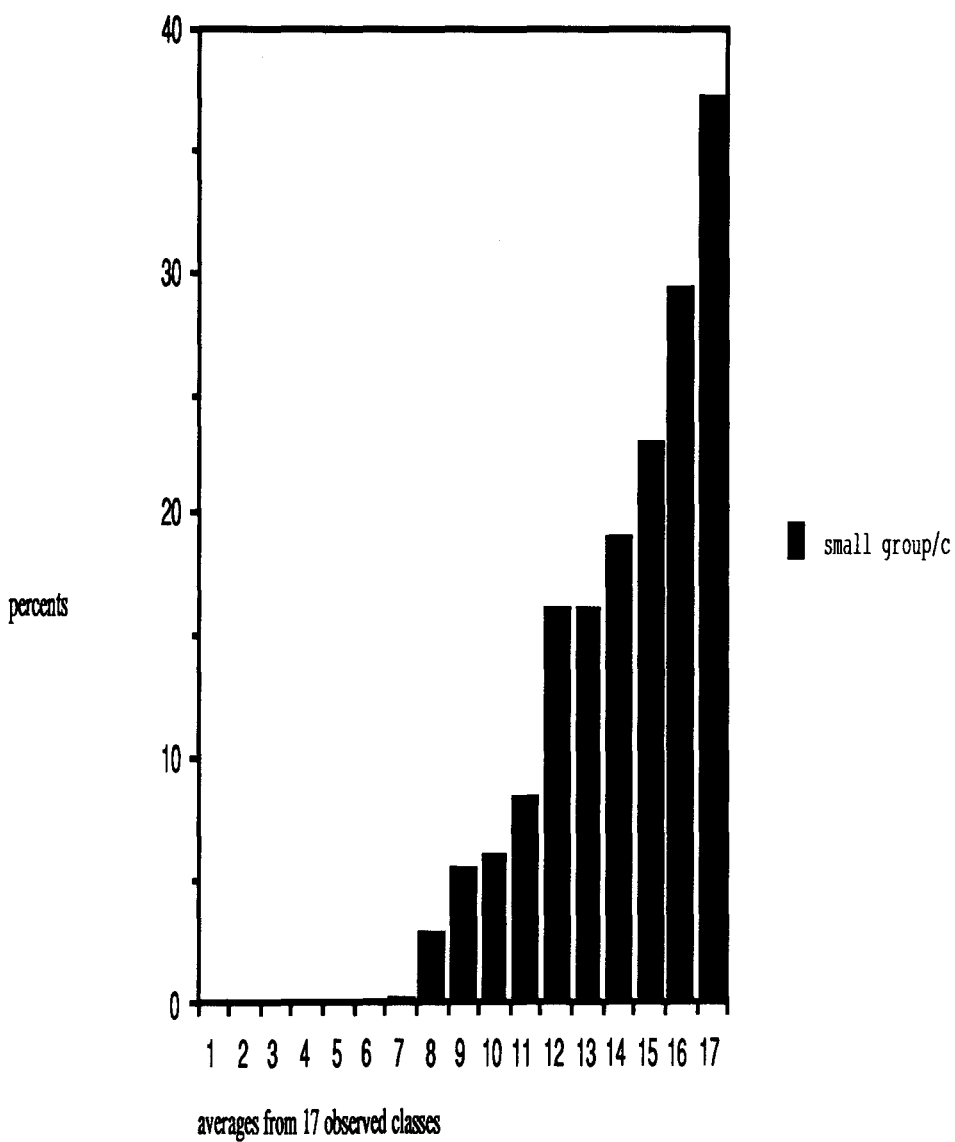


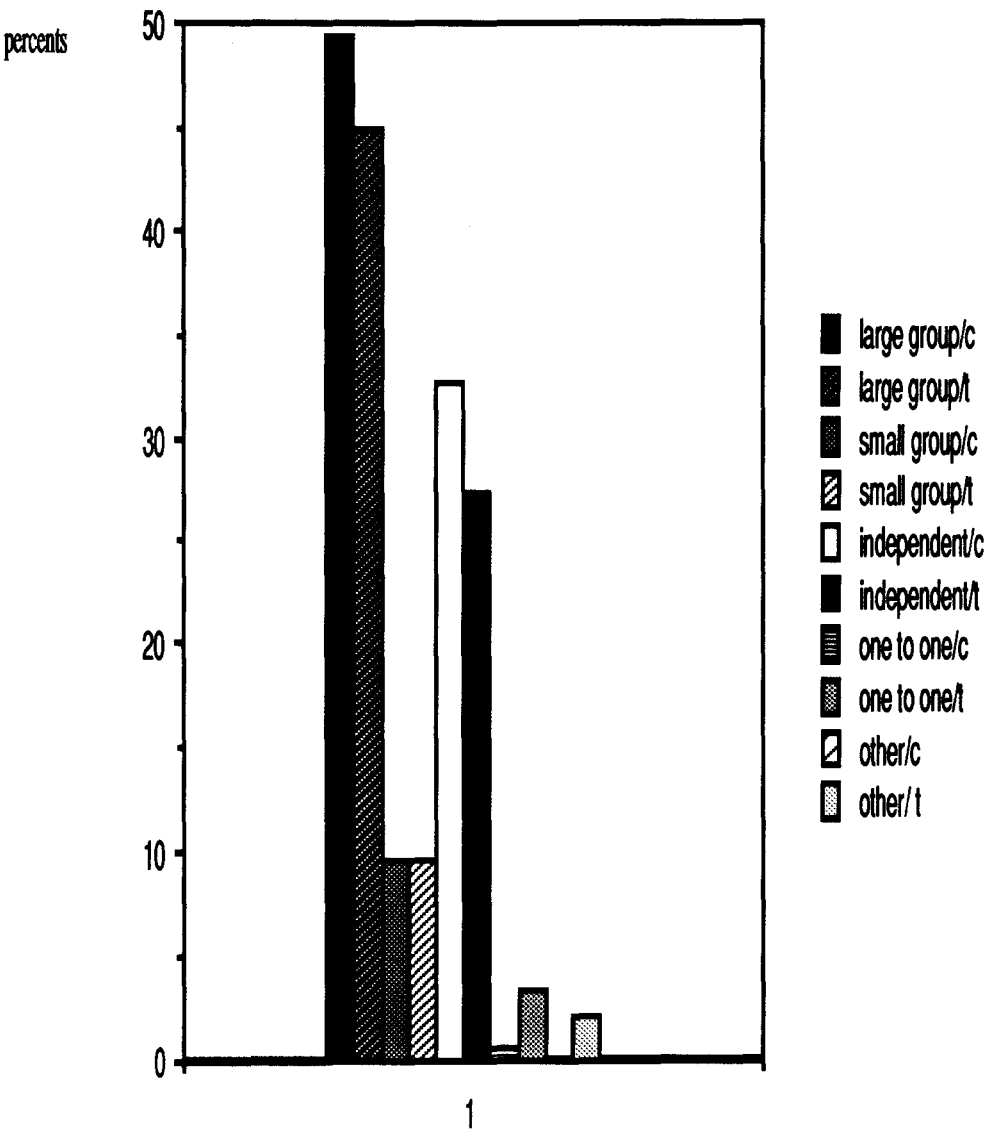
Figure 4: Percent of classroom time spent in small group structures by children without disabilities as observed in seventeen classes included in the study.

**1B. How much time are children with disabilities spending in the same instructional structures as their non-disabled classmates?**

**General Distribution of time in various instructional structures for children with disabilities.**

District average percents of time spent in various instructional structures by children in grade level classrooms with and without disabilities show children without disabilities spending more time in large group and independent instructional structures. Children without disabilities spend 49.39% of their time in large group structures as compared to 44.96% of time for children with disabilities. Children without disabilities spend 32.71% of their time in independent work as compared to 27.40% of time for children with disabilities. The two groups of children spend the same amount of time in small group structures (9.61% and 9.63%) and children with disabilities spend more time in one to one instructional structures (3.257%) and in other structures (2.176%) than children without disabilities.

Figure 5 demonstrates comparisons more clearly.



District averages for instructional structures for children with and without disabilities

Figure 5 Distribution of time in various instructional structures for children with disabilities as observed in the study.

There are some differences in the way children with and without disabilities spend their time in classrooms. Time spent in one to one instruction for children with disabilities represents 3.257% of their time in grade level classrooms. Children without disabilities were not observed spending any time in one to one instructional situations. The difference in time spent in other instructional structures (large group, small group, independent work) differs less than 6% in every instance.

#### Comparison of participation levels in large group instructional structures.

Children with disabilities in grade level classrooms were observed spending the largest amount of their time in large group structures. In addition to reporting district wide means, distribution of classroom means is shown for large group participation in figure 2. In seventeen classrooms observed, children without disabilities spend averages of 15.6 % to 88.6% of their time in large group structures. Mean percent of time spent in large group structures across the district is 49.4%, median ranking is 49.5%.

In seventeen classrooms observed, children with disabilities spend a mean of 44.9% of their time in large group structures, median is 41.96%. The range of averages is 15.6% to 88.8% Figure 6 shows the range and frequency of average time spent in large group structures compared for members of the class (c) and the inclusion children who were observation targets (t).

percent

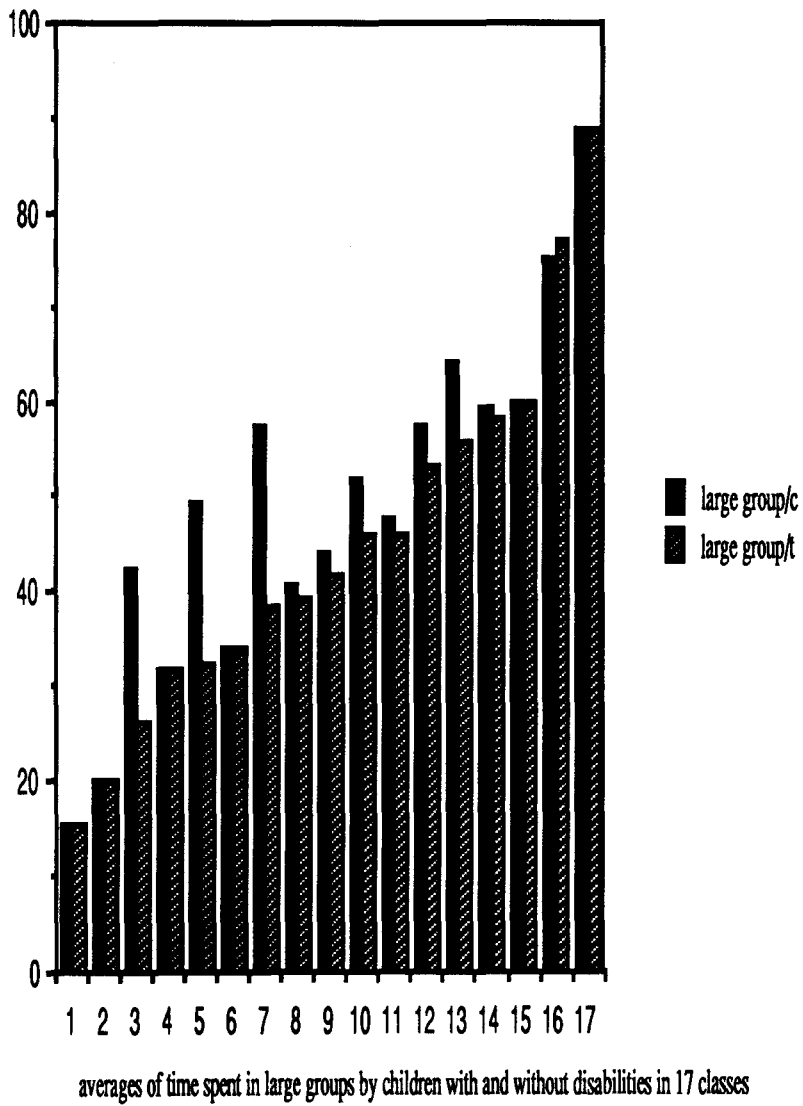


Figure 6.: Averages of participation time in large groups by students with and without disabilities in 17 observed classrooms

### Comparison of participation levels in small group instructional structures.

In 17 observed classrooms, children without disabilities spend an average of 0% to 37.125% of their time in small group structures, median ranking is 5.44%. Mean percent of time spent in small group structures by children without disabilities for the district is 9.61%.

Children with disabilities spend a mean of 9.63% of their time in small group structures when data are averaged across district. Range of classroom averages is 0% to 46.5%, median is 5.44%. In six classrooms, there was no small group instruction during observation periods. Figure 7 shows range and frequency of average time spent in large group structures compared for class members without disabilities (c) and children who were observation targets (t).

In classrooms fourteen and fifteen, there are noticeable differences in average amounts of time spent in small groups by children with and without disabilities.



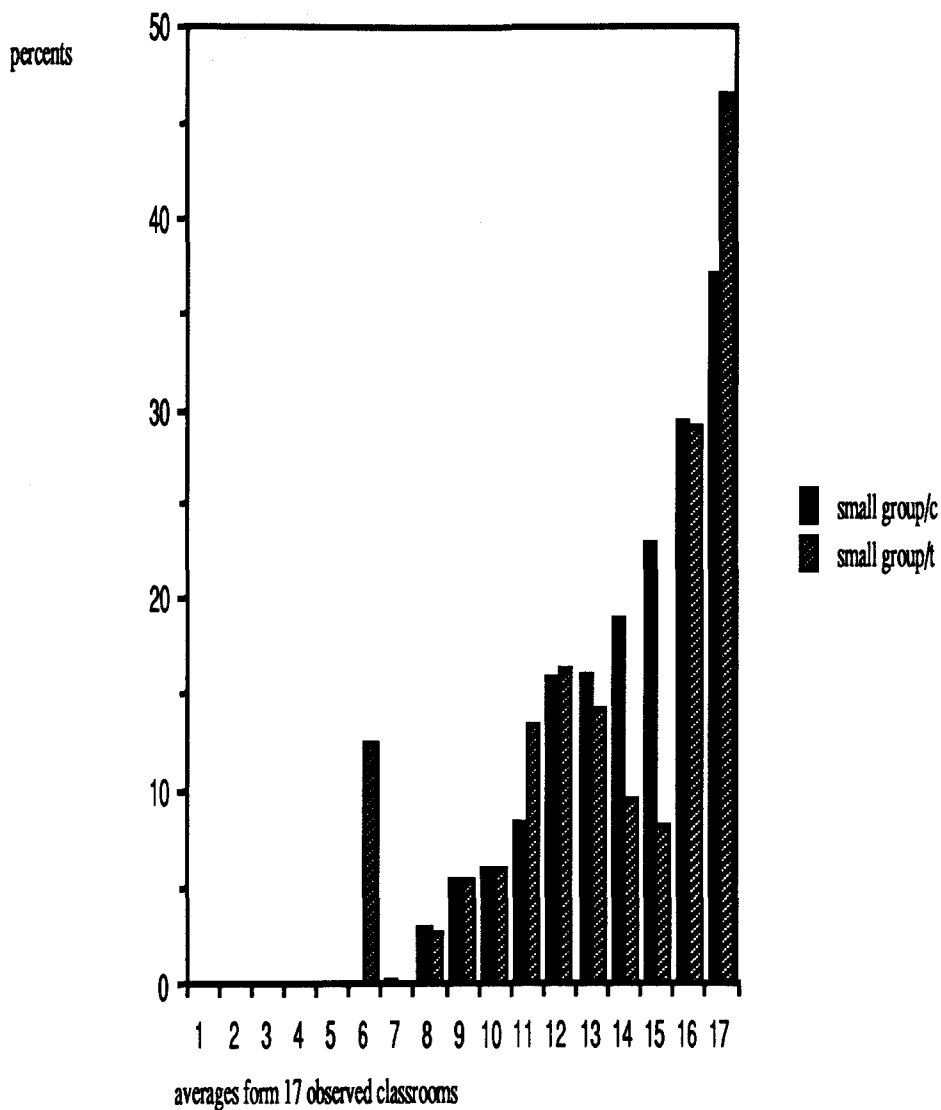


Figure 7: Comparisons of percents of time spent in small group instructional structures by children with and without disabilities.

Comparison of participation levels in independent instructional structures.

In 17 observed classrooms, children without disabilities spend means of 1.5% to 81.143% of their time in independent instructional structures. The median is 21.25%. Mean percent of time spent in independent instructional structures by children without disabilities for the district is 32.71%.

Children with disabilities spend an average of 27.40% of their time in independent instructional structures when data is averaged across the district. The median is 21.25%. The range of averages is 1.5% to 81% Figure 8 shows range and frequency of average time spent in independent structures compared for members of the class (c) and the inclusion children who were observation targets (t).

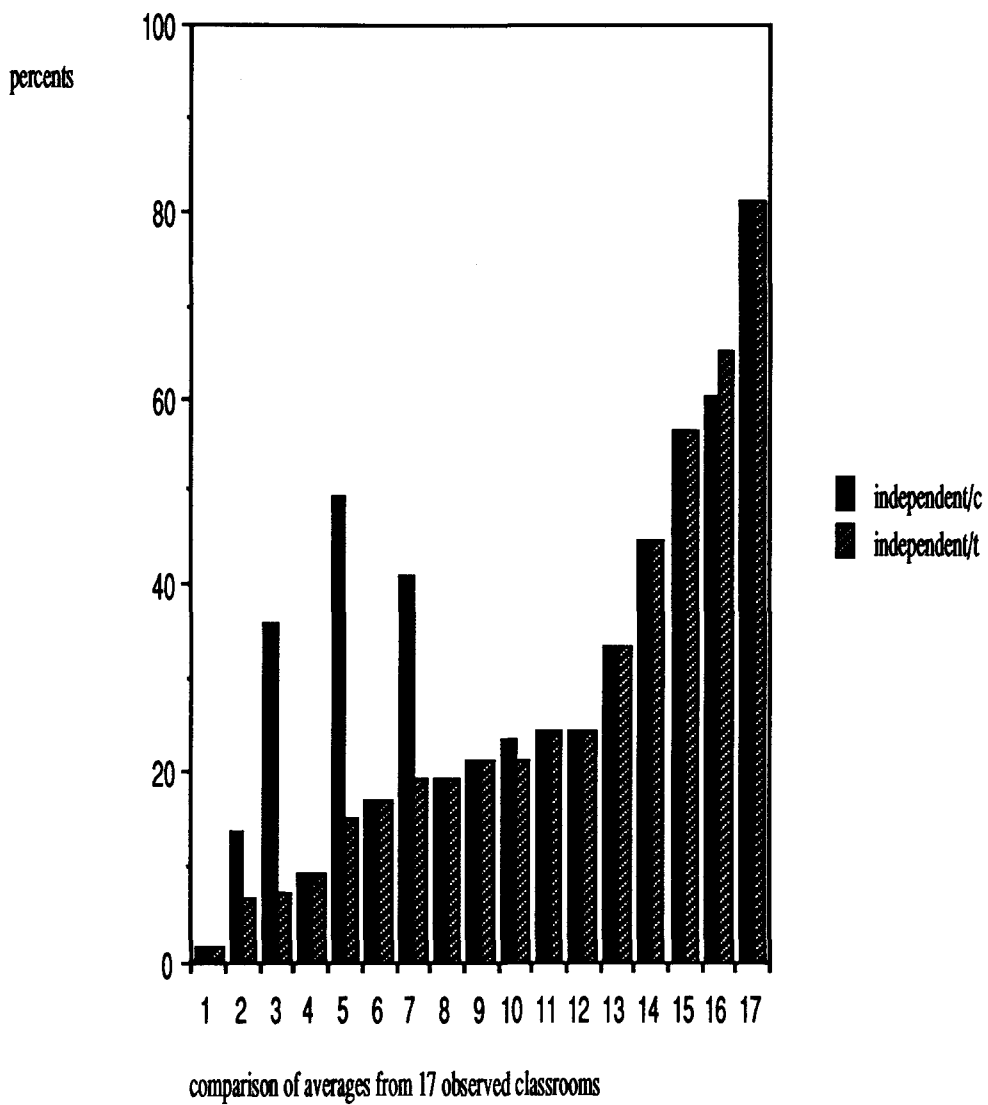


Figure 8: Comparison of participation levels in independent instructional structures by children with and without disabilities as observed in the study

### Time spent by children with disabilities in one to one and other instructional structures

Three instructional structures represent the most frequently used teaching formats in the 17 classrooms observed. These are large group, independent and small group instructional structures.

In addition, the study observed children with disabilities in one to one and other instructional structures. Children with disabilities spent an average of 3.257% of their time in one to one instruction. In six classrooms, children with disabilities received no one to one instruction during observations. The median percent of time spent in one to one instruction was 1.75%.

In 17 classrooms observed, children with disabilities spent 2.176% of their time in other structures. In 14 observed classrooms, children with disabilities spent 0% of their time in other structures. In one classroom, a student spent 32.17% of his time in other structures. In two remaining classrooms, children with disabilities spent less than 3% of their time in other structures.

**Research Question 2. How much task modification for children with disabilities is witnessed in the classroom?**

**Research Question 3. How much instructional modification for children with disabilities is witnessed in the classroom?**

#### Various categories of instructional modification.

Classroom observers used a set of specific definitions to identify whether a task was the same, similar or different for children with disabilities when compared

to instructional tasks performed by children without disabilities. Instructional strategies were observed using a similar set of definitions. Categories were developed as same task/same instructional strategy, same task/different instructional strategy, similar task/ same instructional strategy, similar task/different instructional strategy, different task/same instructional strategy, different task/different instructional strategy. Figure 9 shows distribution of time in categories of instructional modifications.

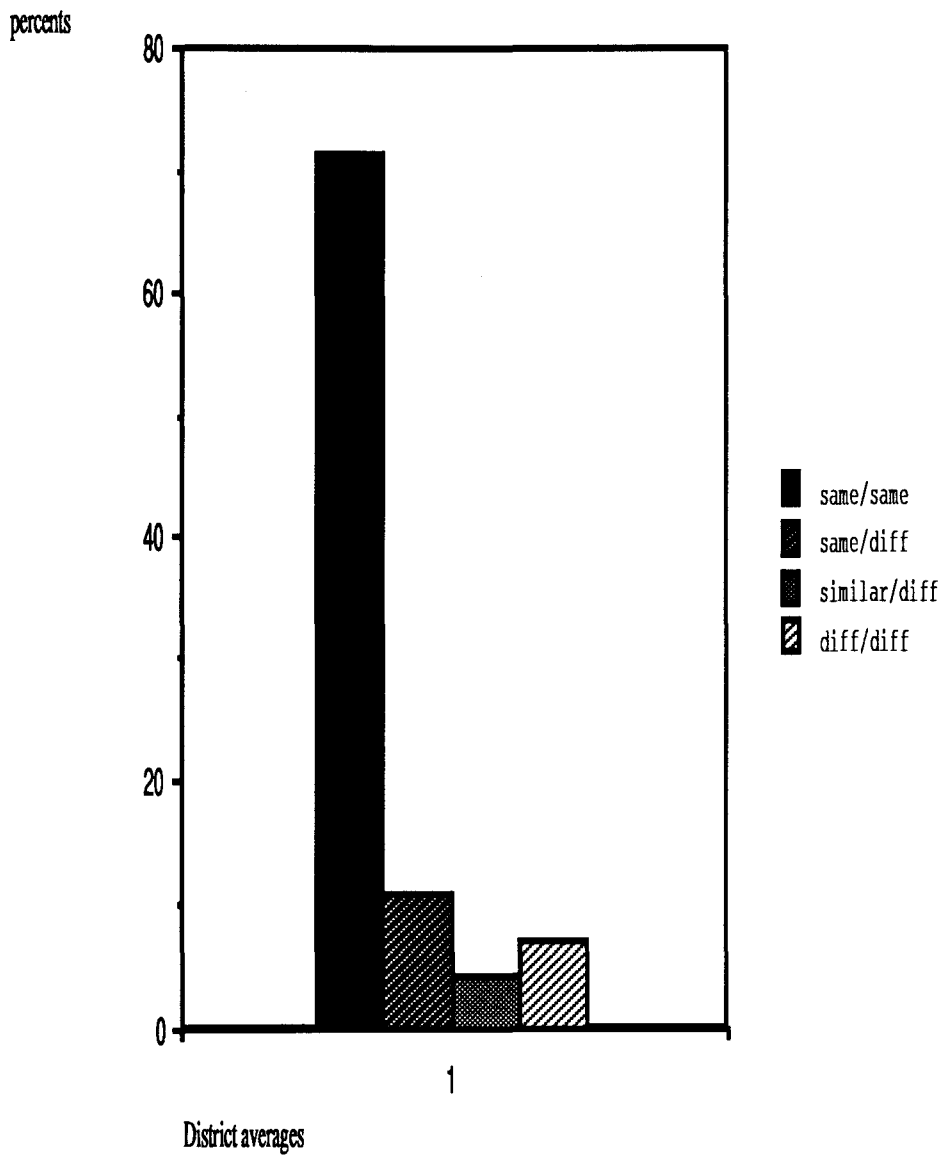


Figure 9: Distribution of time in various instructional and task modifications by students with disabilities as observed in the study.

Students with disabilities spent the most time in same task/ same instructional strategy situations as their non disabled classmates. Averages of time spent in categories of task modification by children with disabilities across the district, showed 71.2% of time spent in same task/same strategy situations.

Distribution of classroom time in same task, same instructional strategy situations by students with disabilities.

Figure 10 shows distribution of time averages spent in the same task, same instructional strategy by students with disabilities in the study. In classroom 19, very little time is spent in the same task/same instructional strategy situations. In classrooms 1-5, over 95% of time is spent in the same task/same strategy structure.

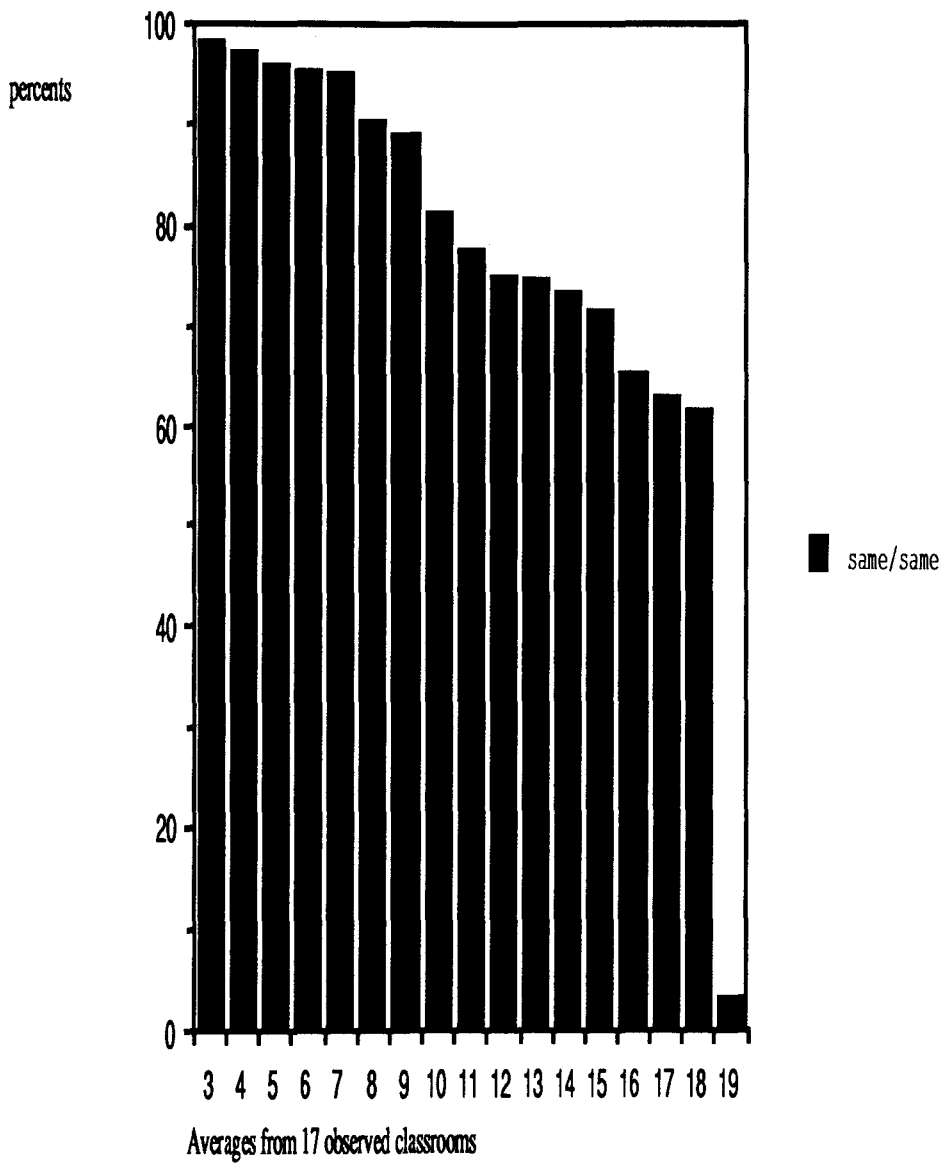


Figure 10: Classroom averages of time spent by students with disabilities in same task/same instructional strategy situations



### Same task and different instructional strategy.

Children with disabilities were observed in same task, different strategy situations 11.15% of time. This means children with disabilities were observed 82.35% of time performing the same instructional tasks as their classmates without disabilities.

### Task modification.

The district mean based on observations from seventeen classrooms showed children with disabilities were performing similar tasks 4.5% of the time observed. In 6.9% of time observed, children with disabilities were performing different tasks. Task modification occurred in 11.4% of the time observed.

### Modification of Instructional Strategy

Instructional modification occurred more frequently. District means from observations in seventeen classrooms showed instructional strategies were modified 22.9% of the time. Strategies were modified 11.5% of the time when the task was the same, 4.5% of the time when the tasks were similar and 6.9% of the time when the tasks were different. An examination of classroom means across the district shows modification of instructional strategies occurred more frequently in some classrooms.

**Research Question 4. When children with disabilities are included in grade level classrooms, how much time are they spending on task ?**

General observations.

Classroom observers used specific definitions to identify active or passive time on task, time off task disruptive and non disruptive. The district average from the observations in seventeen classrooms showed students with disabilities were on task actively or passively in 94.1 % of the time observed. They were off task in a non disruptive manner for 2.3% of the time observed and off task disruptive for .47% of time. Less than one percent time was spent with no task. The total time accounted for is 97. The remaining 3.0% was spent in transition.

Off task behavior.

An examination of means from seventeen classrooms shows there is a variation in classroom experiences. Disruptive off task behavior is found primarily in one classroom where it was observed 6.3% of the time. Off task non disruptive behavior was seen in more classes.

**Research Question 5. How is teacher, aide and peer attention distributed to children with disabilities related to task engagement?**

General Observations

Classroom observers identified specific categories of classroom instruction to count as time spent with teacher, aide or with peers in an instructional situation. They observed children with disabilities to determine who was working with those

children in grade level classroom settings. District wide averages show the teacher is primarily responsible for instruction for 43.7% of the time, aide is responsible 21.6% of the time and children with disabilities are working in a peer directed or cooperative learning situation for 1.345% of the time. Children with disabilities were observed spending a district average of 66.625% of their time in contact with another individual, 27.4% of their time in independent work and 2.2% in transition, 2.1% in structured free time and 2.2% in other activities. Figure 11 shows general distribution of teacher, aide and peer attention.

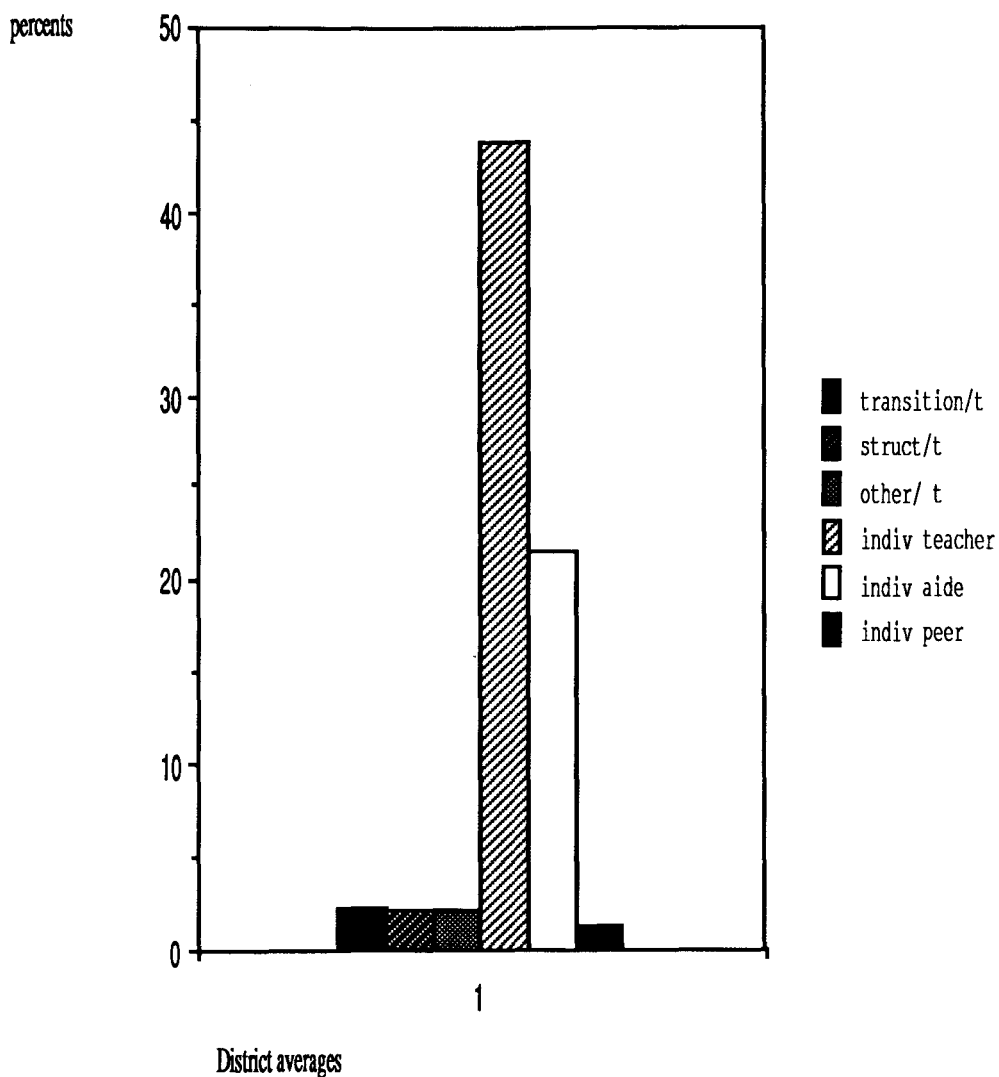


Figure 11: Mean percents of time children with disabilities spend in learning situations directed by teacher, aide and peers. Transition, structured free time and other time commitments are also shown.

#### Distribution of teacher attention.

In 17 classrooms observed, teacher attention was distributed to children with disabilities in a range of 4.4% of the time to 72.125% of time. An examination of classroom means show one observed classroom where children with disabilities spent less than 5% of their time in learning situations directed by the teacher.

#### Distribution of aide attention.

In 17 classrooms observed, aide attention was distributed to children with disabilities in a range of 6.6% of the time to 95.8% of time. The median for the district is 31.5%, the mean is 21.7%. In one observed classroom, a child with disabilities spent 95.8% of his time in learning situations directed by the aide.

#### Distribution of peer attention.

Students with disabilities work in groups directed by their peers or cooperative learning structures an average of 1.3% of the time when data from the district is considered. An examination of means for seventeen classrooms shows cooperative learning used more frequently in two classrooms and not at all in eleven of the observed classrooms.

**Research Question 6 Do children with disabilities have teacher initiated and self initiated opportunities to respond comparable to that of children without disabilities in grade level classroom?**

**General information.**

To answer this research question, observers counted numbers of verbal responses made by children with and without disabilities. Responses were divided into two categories. Teacher or self initiated verbal responses were counted using frequency codes. When data collection was complete, the number of verbal responses made by children with and without disabilities were averaged and means were compared. Response counts for children without disabilities were kept for an entire class and divided by numbers of children in the class to get a mean for comparison.

**Teacher initiated verbal responses**

Verbal responses for children without disabilities from seventeen observed classrooms were compiled to find a district wide average. It was found that children without disabilities responded verbally an average of 1.1 times in any twenty minute observation session. The range is from 4.1 to .21 in any twenty minute observation.

Children with disabilities responded an average of .50 times in any twenty minute session. The range of classroom averages is from 2.1 to 0 times verbal responses.

**Self initiated verbal responses.**

Observers recorded the number of verbal responses made by children with and without disabilities and also the number of self initiated verbal responses for

both groups. These responses were recorded separately. When average frequencies of verbal responses for children without disabilities from seventeen observed classrooms were compiled to find a district wide average, it was found that children without disabilities self initiated verbal responses an average of .33 times in any 20 minute observation session. Children with disabilities self initiated responses an average of .06 times in any twenty minute session.

### Analysis and Implications

This study was developed to describe experiences of children with disabilities when they were included in grade level classrooms. Seven research questions were designed to focus on specific areas of classroom experience.

This section of the study reviewed findings for each research question and developed implications of findings. It was organized around research focuses of instructional structures, task and instructional modification, time on and off task, distribution of teacher, aide and peer attention and opportunity to respond.

#### Instructional structures.

Students with and without disabilities were in two instructional structures during most of the observation time. These were large group and independent instructional structures. Children without disabilities spent 82.7% of their observed time in one or the other of these two structures. They spent 49.4% in large groups and 32.7% in independent structures.

Children with disabilities spent 72.4% of observed time in one or the other of these two structures. They spent 44.9% in large groups and 27.4% in

independent structures. Small group instruction was a distant third. Both groups of children spent 9.6% of their time in small group structures.

The very structure of observed classrooms implies much about teacher and child interactions. The study observed children spending most of their day in passive or traditional learning structures. They are listening to the teacher or other children in a large group discussion setting. Or they are working silently on an isolated task at their desk in independent learning structures.

The teacher remains the major transmitter of learning in this setting. She is not a facilitator or learning coach, instead she is functioning as director of a large group or a momentary one to one tutor when children work independently. In this kind of instructional setting, children interact primarily with the teacher and rarely with one another. There is only one teacher to interact with 25 or more children. The number and quality of student verbal interactions is necessarily limited by this fact. If a teacher includes an aide in large group or independent learning structures, the aides role is a softer echo of the teachers.

During large group instruction, she may sit with a child with disabilities or quietly reinforce behavioral expectations. She is not able to lead groups, answer questions, monitor student discussion or take any other active role, because doing so would distract class attention from the teacher.

In an independent instructional structure, the aide may duplicate the teachers efforts and offer momentary one to one tutoring throughout the room. The instructional role available for aides in these two classroom structures is limited by the structures themselves.



On the other hand, small group work offers opportunities for more active participation by children and by aides. Small group work is typical of more active learning structures. It also lends itself to teaching thematic units, critical thinking and more authentic learning opportunities. It can enhance project oriented learning and cooperative group learning activities. Children are able to discuss concepts or actively manipulate materials in small groups. Additionally, there is an active instructional role available for aides when children work in small groups.

In small groups, an aide may lead a small group of children in exploring a concept or manipulating materials. She may work with groups throughout the room as a backup pair of hands for the teacher. It is not necessary for her to remain silent, because there are more focuses for student attention.

Small group work was found in 11 of 17 observed classrooms. It was used more frequently (37.1% and 29.3%) in two of 17 classrooms. The other nine classrooms where it was observed used small group instruction less than 20% of the time. Distribution of small group instruction indicated a few teachers are using it extensively, about a third of teachers are not using it all, about half of teachers are using occasionally.

Another finding of the study was children with disabilities spend most classroom time in instructional settings directed by the teacher (43.2%) or the aide (21.1%) and approximately 1% of their time in groups lead by their peers.

About three percent of the time, children with disabilities were engaged in one to one instruction. The study showed a district wide mean of 2.2% of time in other instructional structures for children with disabilities. This number is based on observations of one student in one classroom. If this set of observations were

removed from the district mean, it would fall to 0%. The sum of instructional time with another individual is 70.5%, the remainder of student time(27.4%) is spent in independent learning structures.

#### Task and instructional modification.

Most of the time children with disabilities were observed performing the same task and experiencing the same instructional strategy as children without disabilities. The district mean was 71.20% of time spent this way. The second most frequent learning situation for children with disabilities was same task and different instructional strategy. Students with disabilities spent 11.15% of time in this situation. The sum of these two instructional task times is 82.4%, so children with disabilities were observed performing same instructional tasks as their classmates without disabilities during 82.4% of the time..

Task modification occurred 11.43% of time observed. Instructional modification was more common. Strategies were modified 22.93% of observed time.

The study showed, when children with disabilities are included in grade level classrooms, they experience a curriculum and learning experiences very similar to their non disabled classmates. There are some exceptions to this.

In one classroom, a student with disabilities spent 95% of his time in a different instructional structure than the one experienced by his non disabled classmates. He is supported by a special education classroom aide for most of the day. The presence of the aide changes his level of participation in grade level experiences. He is not experiencing the same educational experiences as other class

members because there is an adult at his side constantly. In this situation, it is difficult to measure advantages of a grade level setting for this child.

Special educators who support inclusion, might be proud of the fact that children with disabilities are included into experiences so similar to those of the grade level children. The very low percent of time spent in one to one instruction by children with disabilities demonstrates that they are not being pulled out of the grade level classes to experience a "class within a class" situation. In this sense, the similarity of educational experiences can be seen as positive. The inevitable question is whether the level of instructional adaptation is sufficient to meet educational needs of children with disabilities.

Most of the children observed in this study had moderate disabilities. An argument could be made to support the appropriateness of mainstream education curriculum for meeting their needs based on the moderate level of need. The more frequent use of instructional strategy modifications rather than task modifications shows the priority placed on maintaining connections with grade level curriculum by educators.

The level and need for instructional or strategic modification for children with severe or moderate disabilities when they are included in grade level classrooms, has been addressed by Lou Brown (Brown, 1992). Brown states those who would include children with moderate or severe disabilities for 100% of the school day are as out of touch with the meaning of inclusion as those who would never include children with moderate or severe disabilities. He goes on to set up a system of considerations and criteria for establishing different or similar educational strategies.

This study cannot conclude how well children with disabilities are learning, only that experiences are similar or dissimilar. We do conclude that experiences are similar and that little or no modification is in evidence. Little or no modification implies little effort or time by classroom teachers is required to transition children with disabilities into grade level classes.

#### Student time on and off task

The study showed children with disabilities to be on task for 94.05% of time observed. They were off task for 2.27% of time. One child was off task and disruptive for 6.25% of time observed. No other child was observed as disruptive.

When children with disabilities were included in grade level classrooms, they were not disruptive to the class or to class routines.

#### Distribution of teacher, aide and peer attention.

District wide averages show the teacher leading instruction for 43.7% of the time, aide is leading instruction 21.6% of the time and children with disabilities are working in a peer directed or cooperative learning situation for 1.3% of the time. Children with disabilities were observed spending a district average of 66.6% of their time in contact with another individual, 27.4% of their time in independent work and 2.2% in transition, 2.0% in structured free time and 2.176% in other activities.

When the teacher is responsible for directing learning experiences of children with disabilities, it is primarily in a large group setting. Aides work in one to one or small group instructional settings. The study does not show how much time aides spend supporting special physical needs of children with disabilities.

Support needed for children with disabilities to remain in grade level classrooms is more than academic.

Aides are required to take children for medications, toilet or other physical considerations during school time. Aides may also be monitoring behavior, giving silent cues or prompts, collecting data or anticipating future instruction.

Special Education literature reports aides or teaching assistants are an important instructional resource in self contained special education classrooms. They may work one to one or lead small groups or implement non academic learning objectives with children while under direction of a special education teacher. They are accustomed to classroom diversity, very focused on serving individual students. In meeting diverse needs, aides can play a very positive role in developing a strategy to assist teachers. If more of this instructional teamwork could be transferred to grade level classrooms, it would be a valuable resource for children.

#### Opportunity to respond.

Children without disabilities respond to teacher initiated interactions on average of 1.106 times in any twenty minute observation. The range of classroom averages is from 4.124 to .215 verbal responses. Children without disabilities respond an average of .496 times in any 20 minute observation. The range is from 2.1254 to 0 times in any 20 minute observation. Self initiated verbal interactions are more common for children without disabilities. They are observed to self initiate a verbal interaction to the teacher .33 times in any twenty minute sessions.

Children with disabilities self initiate a verbal interaction .055 times in any twenty minute session.

All responses were counted by observers including monosyllabic yes or no answers. Often student answers in large group participation sessions tend to be limited to one or a few words. This is demonstrated by the very high number of verbal responses counted in some observational sessions. The high numbers of verbal responses observed in some classrooms implies children are giving very short, rapid responses. More children are able to participate, but depth of participative experience is shallow.

For the teacher, classroom experience may seem filled with voices of children, for the child, verbal interaction is limited to a few words every hour. For children with disabilities this experience is more extreme. They are less likely to respond and less likely to self initiate verbal responses. This finding correlates with Roberta Schnoor's classroom observations (Schnoor, 1990). Schnoor found a child with moderate mental disabilities who had been included in a first grade classroom was less likely to speak and less likely to self initiate speech than his classmates without disabilities.

Teacher questioning strategies may play an important role in who answers questions, and how long or in-depth answers are permitted to be. The large group structure identified as the common learning structure in this district encourages rapid, short responses to questions because the children are directing their answers at one set of ears. Their only significant listener is the teacher.

Small group structures permit more verbal interaction by more children. In a small group structure, children are have more opportunities to speak because there

are fewer of voices waiting for the opportunity to respond. The significant listener becomes another child or the aide. This allows children to actively invest in learning rather than passively receiving information in a teacher centered classroom structure.

The group may report back to the teacher and the large group, but more children may verbally explore concepts in a smaller setting. Increased time available to children in small groups for verbal interaction may encourage longer, more complex thinking and reasoning responses.

The most significant findings of the study were the patterns of learning structures found in classrooms for children with and without disabilities and the opportunities to respond for children with and without disabilities. These findings identified typical classroom procedures for both groups of children as very similar. The classroom procedures found also limited verbal interaction by children, limited use of aides as instructional facilitators and put children into passive, isolated or shallow levels of interaction for much of the day.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Summary of Study

Inclusion is the educational practice of teaching children with disabilities in the classroom they would attend if not disabled. Students with disabilities may receive special instruction during the school day which requires them to leave classroom, but their starting place is the home school classroom. If implemented nationally, as seems inevitable at this writing, inclusion will affect millions of children over the next few years. Courts have considered many ramifications of inclusion on resource allocation and structures of schools, special educators are predicting many benefits for children from the practice. Still a review of literature shows few studies documenting experiences of children as inclusion is implemented. There is an identified need for empirical observations of its impact on children, teachers and classrooms as implementation occurs.

The purpose of this study was to describe classroom experiences of students, teachers and aides in grade level classrooms where children with moderate to severe disabilities have been included. Classroom observations included instructional structures ,time on task and opportunities to respond for children with and without disabilities. The study described amount of time spent in the following instructional structures: large group, small group, independent, one to one, peer directed, transition times, structured free time, unstructured free time and other. It



determined how much time included child is involved in same instructional structures, how much time on task is exhibited by children with and without disabilities and how many opportunities to respond are provided for children with and without disabilities It will also study how much task modification and instructional modification is done for included children. It described how teacher, aide and peer attention is distributed to children with disabilities related to task engagement.

The study addressed areas identified above through a set of research questions. Those questions are restated at the beginning of section labeled conclusions. Each question is answered under a topical heading.

Seventeen classrooms in three elementary schools in one large suburban school district where children with disabilities had been included for two years or longer were targeted for study. Every classroom fitting this description was included in the study. Altogether, 32 children with disabilities and approximately 491 children without disabilities were observed. The district chosen for study was located close to Chicago in the western suburbs. It served approximately 13,000 children including a diverse population of minority and low income children of approximately ten percent.

The study was constructed around classroom observational techniques developed by Dr. Rick Van Acker (1991) and Dr. Alan Repp (1989) of Northern Illinois University. They used a computer program to time and count various classroom behaviors. The program can be established to respond to any identified set of codes. Thirty five separate observational codes were developed for this study and program was set to them.

Thirty five codes focused on instructional structures, time on task, distribution of teacher, aide and peer attention, curriculum modification and opportunities to respond. Most were adapted or adopted from Dr. Van Acker's unpublished work which is based on Dr. Repp's work. A few were developed specifically for this study.

Two observers practiced observation and compared results until they reached a 90% agreement. Once reliability was established, a minimum of ten observations was completed by an observer in all 17 classrooms. Results were calculated into percentages and frequencies and compared classroom by classroom and across district as a whole.

## Conclusions

### Research Questions

- 1. How much time are children in grade level classrooms spending in various instructional structures in classrooms where children with disabilities are included?
- 1A. How much time are children without disabilities spending in various instructional structures?
- 1B. How much time are children with disabilities spending in the same instructional structures as their non-disabled classmates?
- 2. How much task modification for children with disabilities is witnessed in the classroom?

- 3. How much instructional modification for children with disabilities is witnessed in the classroom?
- 4. When children with disabilities are included in grade level classrooms, how much time are they spending on task ?
- 5. How is teacher, aide and peer attention distributed to children with disabilities related to task engagement?
- 6. Do children with disabilities have teacher initiated and self initiated opportunities to respond comparable to that of children without disabilities in grade level classroom?

**1. Most common instructional structures in observed classrooms were large group, independent instruction and small group**

Children in grade level classes were observed about half time in large groups, about a third of time in independent structures and less than ten percent of time in small groups.

**2. Pattern of classroom means indicates use of small groups is not uniform in classrooms observed.**

Distribution of classroom means in instructional structures shows a few teachers using small groups frequently, about a third of teachers never using small groups and remainder occasionally using small groups.

**3. Children with and without disabilities were observed in similar patterns of participation in three most common instructional structures**

Children without disabilities spent about half their time in large group structures compared to 45% of time for children with disabilities. Children without disabilities spent 32% of time in independent structures compared to 27% for children with disabilities. Both groups of children spent 9.6% of time in small groups.

**4 Children with disabilities spend more time in one to one and other instructional structures.**

Children with disabilities spend about three percent of time in one to one instruction and more than two percent of time in other instructional structures.

**5. Students with disabilities experienced similar curriculums as their non disabled classmates**

Students with disabilities were observed spending over 70% of time in same task same strategy instructional models. Eighty two percent of time was spent on same task with an instructional strategy modified. Similar tasks were observed five percent of time and different tasks were observed seven percent of time. Strategy modification was more common and was seen about 22% of time.

**6. Students with disabilities are on task most of time when included in grade level classrooms.**

Students were observed on task almost 95% of time. When they were observed off task, they were not disruptive, except in one instance. One student was observed off task and disruptive over six percent of time in his classroom.

**7. Teachers assume primary instructional responsibility for children with disabilities.**

Teachers were observed directing learning activities for children with disabilities over 44% of time. Aides directed learning activities 21% of time and cooperative learning was observed less than 1% of time.

**8. Aides assume more responsibility for children with more severe disabilities**

Distribution of classroom means showed one aide spending 95% of time with student with disabilities. This was the most extreme case.

**9. Children with disabilities respond fewer times to teacher initiated questions.**

Children without disabilities respond to teacher initiated questions about once in any twenty minute session. Children with disabilities respond about half that number of times.

**10. Children without disabilities self initiate verbal responses more frequently than children with disabilities.**

Children without disabilities self initiate verbal responses about .33 times in any 20 minute session. Children with disabilities self initiate about .05 times in any 20 minute session.

**Recommendations**

1. Develop a system wide instructional philosophy about needs of diverse learners and how to use classroom structures and resources to meet them.
2. Develop more active learning structures across district.
3. Explore use of more small group instruction as an alternative to large group or independent instruction.
4. Explore questioning strategies to develop more in-depth thinking and answers by both children with and without disabilities.
5. Consider use of more specialized instructional strategies for children with disabilities and for children with diverse needs in general.
6. Grade level curriculum should be analyzed and a summary available to IEP teams. Teams can use summary to match grade level instruction to identified

student needs when developing instructional programs for students with disabilities.

7. Educate classroom teachers about their roles as members of IEP teams.

8. Develop a district notebook of appropriate curriculum task and instructional strategy modifications and make it available to all classroom teachers and aides.

9. Develop intensive in service for classroom teachers on working with instructional aides.

10. Develop in service for instructional aides on classroom support needs and strategies.

11. Develop intensive in service for special education teacher/facilitators involved in inclusion on criteria and conditions considered for establishing specific curriculum adaptations tailored to individual needs.

### Recommendations for Further Study

1. Observe verbal responses of children with and without disabilities for length and frequency.
2. Observe instructional structures in classrooms where children with disabilities have not been included.
3. Observe and compare teacher questioning style and student responses.
4. Analyze evidence of achievement by children with disabilities who are experiencing grade level curriculums.



## REFERENCES

- Anderson, J., (1989) Issues and Outcomes of Federal Court Cases Addressing the Educational Mainstreaming of Students with Handicaps: Implications for Educational Leaders. Unpublished doctoral dissertation, Loyola University, Chicago, Illinois
- Baer, D. M. (1986) Exemplary Service to What Outcome? Review of Education of Learners With Severe Handicaps: Exemplary Service Strategies Journal of the Association for Persons With Severe Handicaps (pp 145-147)
- Barnett v. Fairfax County School Board, 927 F. 2d 146 (4th Cir. 1991) cert. denied, 112 S. Ct. 175 (1991)
- Berres, M. & Knoblock, P. (1987), Program Models for Mainstreaming. Rockville, MD: Aspen Publishing
- Brinker, R.P. (1985), "Interactions Between Severely Mentally Retarded Students and Other Students in Integrated and Segregated Public School Settings." American Journal of Mental Deficiency 89 : 587-94.
- Board of Education of the Hendrick Hudson Central School District v. Rowley
- Board of Education, Sacramento City Unified School District v Holland. By and Through Holland, 786 F. Supp. 874 ( E.D. Cal. 1992).
- Brown, L. Long, E. Udvari-Sholner, A. Davis, L. Van Deventer, P., Ahlgren, C., Johnson, F., Gruenwald, L., & Jorgenson, J. (1989). The home school: Why students with severe intellectual disabilities must attend the schools of their brothers, sisters, friends, and neighbors. The Journal of the Association for Persons with Severe Handicaps, 14(1), 535-542.
- Brown, L. Netupshi, J and Hamre Netupshi, S (1976) The Criterion of Ultimate Functioning and Public School Services for the Severely Handicapped Students. In M.A. Thomas (Ed) "Hey Don't Forget About Me": Education's Investment in the Severely, Profoundly and Multiply Handicapped (pp 2-15). Reston, Va. Council for Exceptional Children
- Brown, L., Schwarz, P., Udvari-Solner, A., Kampschroer, E. F., Jorgensen, J., and Gruenewald, J. (1991). How much time should students with severe intellectual disabilities spend in the regular education classrooms and elsewhere? The Journal of the Association for Persons With Severe Handicaps, 16(1), 39-47.
- Certo, N., Haring, N., & York, R. (Eds.). (1984) Public school integration of severely handicapped students. Baltimore: Paul H. Brookes Publishing Co.
- Daniel R.R. v. State Board of Education, 874 F. 2d 1036 (5th Cir. 1989)

Davern, L., and Schnorr, R. (1991). Public schools welcome students with disabilities as full members. Children Today, 20(2), 21-25.

Deno, E. (1970) Special education as developmental capital. Exceptional Children, 37, 229-237.

Falvey, M.A., (1989) Community-Based Curriculum: Instructional Strategies for students with Severe Handicaps. Second Edition. Baltimore, MD. Paul H. Brookes Publishing Co.

Fisher, Joseph (1985) Least Restrictive Environment, Administrative Bulletin, Department of Specialized Educational Services, November 26, 1985, Springfield, IL, ISBE

Forest, M. (1989) It's about relationships. Toronto: Frontier College Press.

Freagon, S., Kincaid, M., and Kaiser, N.J. (1990). One educational system for all including children and youth with severe intellectual disabilities and/or multiple handicaps. (Manuscript developed in part by Grant # G0087C3057-90, "Statewide Systems Change Grant: Illinois Special Education Programs") Washington, D.C.: U.S. Office of Education.

Freagon, S., Wheeler, J., Brankin, G., McDaniel, L., Stern, L., Usilton, R. & Kaiser, N. (1983) Increasing Severely Handicapped Students Personal Competence in the Community. In S. Freagon, J. Wheeler, G. Brankin, K. McDaniel, D. Costello & W. M. Peters (Eds) Curricular Processes for the School and Community Integration of Severely Handicapped Students Ages 6-21 DeKalb, IL; Northern Illinois University and DeKalb County Special Education Association

Gilhool, T. (1986). Changing Public Policies: Roots and Forces. In M. Reynolds (Ed.) Mainstreaming: Origins and Implications (pp.8-13) Reston, VA: Council for Exceptional Children.

Gottlieb, J., Rose, T., and Lessen, E. (1983). Mainstreaming. (In Kernan, K., Begab, M., and Edgerton, R., (eds), Environments and behavior: The adaptation of mentally retarded persons. Baltimore: University Park Press), 195-212. ✓

Greer v. Rome City School District, 950 F 2d 688 (11th Cir. 1991) *opinion withdrawn by*, 956 F 2s 1025 (March 12, 1992) *opinion reinstated in part by*, 967 F 2d 470 ( May 20, 1992).

Jenkins, J. & Jenkins, L. (March, 1987). Making peer tutoring work. Education Leadership, 64-68

Johnson, D. & Johnson, R. (1980). Promoting constructive student-student relationships through cooperative learning. Washington D.C.: The American Association for Teacher Education.

Kagan, S.(1985). Cooperative Learning: Resources for teachers. Riverside, CA; University of California.

Kernan, K.T., Begab, M.G., Edgelton, R.B., (eds.) (1983) Environments and Behavior. The adaptation of Mentally Retarded Persons, University Park Press

Kirk and Gallagher, (1986). Educating Exceptional Children Boston, Massachusettes, Houghton Mifflin

Lieberman, G., (1991) ISBE Memorandum #91-69M (December 2, 1991) Illinois State Board of Education, Department of Special Education

Kohl, F.L.; Moses, L.G. ; and Stettner-Eaton, B.A. "The Results of Teaching Fifth and Sixth Graders to Be Instructional Trainers with Severely Handicapped Students." Journal of the Association for the Severely Handicapped 8, no. 4 (1983); 32-40.

Lachman v. Illinois State Board of Education, 852 F. 2d 290 (7th Cir. 1988) cert. denied, 488 U. S. 925 (1988)

Leininger, C. Robert , Definition (1992) The Illinois Association of School Boards Journal, (March/April, 1992).

Lipsky, D. K. & Gartner, A. (1987) Beyond Special Education: Toward a Quality System for All Students. Harvard Educational Review, 57, No. 4, pp 367-395 ✓

Madden, N., & Slavin, R. (1983). Mainstreaming students with mild handicaps: Academic and social outcomes. Review of Educational Research, 53, 519-659

Meyer, L. H.; Fox A.; Schermer, A.; Ketelsoen, D.; Montan, N.; Maley, K.; and Cole, D. (1987) "The Effects of Teacher Intrusion on Social Play Interactions Between Children with Autism and Their Non handicapped Peers." Journal of Autism and Developmental Disorders 17 : 315-32

Meyer, Eichinger, and Park Lee, (1987) A Validation of Program Quality Indicators in Educational Services for students with severe disabilities Journal of the Association for Persons with Severe Handicaps September, 1987

Mount, B.; Beeman, P. & Ducharme, G. (1988). What are we learning about circles of support? Manchester, CT: Communities, Inc.

O'Brien, J., M., Snow, J., & Hasbury, D. (in press). Action for inclusion: How to improve schools by welcoming children with special needs into regular classrooms. Toronto: Frontier College Press. ✓

Office of Special Education and Rehabilitative Services. (1987, Spring ). Effective partnerships: An OSERS initiative. OSERS News in print.

Repp, A., (1989) A Computer Based System for Collecting and Analyzing Observational Data. Journal of Special Education Technology v9 n4 p207-217

Sailor, W., (1981) Bay Area Severely Handicapped Deaf-Blind Project. Final report. September 1, 1978 to December 31, 1981 San Francisco State University, Department of Special Education

Sailor, W.; Anderson, J. L.; Halvorsen, S.T.; Doering, K.; Filler, J and Goetz, L. (1989) The Comprehensive Local School: Regular Education for All Students with Disabilities. Baltimore: Paul H. Brookes, .

Sailor, W., (1991), Special Education in the Restructured School. Remedial and Special Education v12 n6 p8-22 ✓

Schult v. Mankato Independent School District No. 77, 937 F 2d 1357 (8th Cir. 1991) cert. denied, 112 S. Ct. 937

Schnoor, R., (1990) "Peter? He comes and goes...": First Graders' Perspectives on a Part-Time Mainstream Student, Journal of the Association for Persons with Severe Handicaps, Vol 15, No 4. 231-240

Slavin, R.; Madden, N.; Stevens, R. (Dec-Jan 1990). Cooperative learning models for the 3 R's. Educational Leadership, 22-28.

Snow, J., and Forest, M. (1987) "Circles.' In More Education/Integration, edited by M. Forest. Downsview, Ont.: G. Allan Roeher Institute,

Sontag, E., (1989) Summary of Changes in Draft FYS1990-92 State Plan as Compared to FYS1987-89 State Plan Springfield, Illinois, Illinois State Board of Education

Sontag, E., Certo, N., & Burton, J. E. (1979) On a Distinction Between the Education of the Severely and Profoundly Handicapped and a Doctrine of Limitations (Exceptional Children, 45)605-616

Sontag, E., Burke, P. J. & York, R. (1973) Considerations for Serving the Severely Handicapped in the Public Schools Education and Training of the Mentally Retarded 8 20 - 26

Sprinthall, N.S., and Blum L.T (1980) "Peer and Cross age Teaching: Promoting Social and Psychological Development in Mainstream Classes." In Social

Environment of the Schools, edited by M.C Reynolds, Reston, Va.; Council for Exceptional children, .

Stainback S., & Stainback, W. (1985). Integration of students with severe handicaps into regular schools. Reston, VA: Council for Exceptional Children.

Stainback, W., Stainback, S., & Bunch, G. (1989). Introduction and Historical Background. In S. Stainback, W. Stainback, & M. Forest (Eds.). Educating all Students in the Mainstream of Regular Education. Baltimore, MD: Paul H. Brookes.

Thomas, S. B., (1985) Legal Issues in Special Education. National Organization on Legal Problems of Education: Topeka, Kansas, Thousand, J.S., Fox, T.J., Reid, R., Godek, J., Williams, W., & Fox, W.L. (1986). The Homecoming Model: Educating students who present intensive educational challenges within regular education environments. Burlington: University of Vermont, Center for Developmental Disabilities.

Van Acker, R., (1991) Observer accuracy under Two Different Methods of Data collection: The Effect of Behavior Frequency and Predictability. Journal of Special Education Technology v11 n3 p155-66

Villa, R., Thousand, J. S., Paolucci-Whitcomb, P., Nevin, A., (1990) In Search of New Paradigms for Collaborative Consultation Journal of Educational and Psychological Consultations, 1 (4),

Weintraub, F. J., Abeson, A., Ballard, J., and LaVor, M., (1976) Public Policy and the Education of Exceptional Children The Council for Exceptional Children: Reston, Virginia

Will, M. (1986) Educating students with learning problems-A shared responsibility. Washington, DC: U.S. Department of Education, Office of Special Education and Rehabilitation Services.

York, J., Vandercook, T., Thurlow, M., & Stave, K. (1988). Feedback from middle school students about activities with peers who have severe disabilities (Brief Report #88-4). Minneapolis: University of Minneapolis: Minneapolis Affiliated Program on Developmental Disabilities.

\_\_\_\_\_ The Last Word on Full Inclusion?, Special Educator, May 12, 1992, Volume 7, Issue 16, Horsham, Pa.)

## APPENDIX A

Teacher Code	School Code	Student Code	Ident. Disabil.	Aide Assign & Code	Special Service
02	01	02	LD	01	BM
03	01	03	BD	02	WX
03	01	04	EMH	02	BWMS
04	01	05	LD	01	W
05	01	06	LD	03	BW
05	01	07	LD	03	WM
06	01	08	BD, LD	04	XB
06	01	09	LD	L04	
07	01	10	PH, LD	05	CMSAWX YP
08	01	11	LD, SLI	06	CWM
08	01	12	LD, BD	06	M
09	02	13	BD	07	WSM
10	02	14	PH	08	W
10	02	15	LD	08	MS
11	02	16	LD	09	W
11	02	17	LD	09	
12	02	18	LD	10	
12	02	19	LD	10	
13	02	20	LD	11	
13	02	21	LD	11	
14	02	22	LD	11	B
15	03	23	EMH	12	BMSW
16	03	24	SLI	12	G
16	03	25	EMH	14	WBAMS
17	03	26	LD	15	B
18	03	27	OTHER, SLI	16 & 17	WAMSB
19	03	28	EMH, SLI	13	WBMSA
19	03	29	LD	13	XB
20	03	30	LD	18	M
21	03	31	EMH	19	WB
21	03	32	LD	19	B

# RELATED SERVICE KEY

Adapted Physical Education  
Aide - Class  
Aide Individual Student  
Counseling Services  
Occupational Therapy  
Other Related Services  
Physical Therapy  
Speech/Language Services  
Social Work Services  
Transportation

# CODE

A  
B  
C  
G  
M  
P  
  
S  
W  
X  
Y

APPROVAL SHEET

The dissertation submitted by Elizabeth A. Johnston has been read and approved by the following committee:

Dr. Max A. Bailey, Director  
Associate Professor and Chairman  
Educational Leadership and Policy Studies  
Loyola University of Chicago

Dr. Janis Fine  
Visiting Assistant Professor  
Curriculum and Instruction  
Loyola University of Chicago

Dr. L. Arthur Safer  
Professor and Associate Dean  
Educational Leadership and Policy Studies  
Loyola University of Chicago

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

April 12, 1994  
Date

Max A. Bailey  
Director's Signature